

Department of water supply and sanitation, Punjab
Notice for Public Review and Comment on Draft Operation and Maintenance Policy

[Date: February 13, 2024]

Subject: Draft Operations and Maintenance (O&M) Policy for Water Supply and Sanitation

Dear Residents/Citizens/Stakeholders,

DWSS is pleased to announce the release of the Draft Operations and Maintenance (O&M) Policy for Water Supply and Sanitation for public review and comment. This policy aims to ensure the efficient, sustainable, and equitable management of water supply and sanitation schemes of the rural areas of Punjab.

The draft policy document is available for review and feedback on our official website <https://dwss.punjab.gov.in>. We invite all stakeholders, including residents, community groups, non-governmental organizations, and other interested parties, to provide their valuable comments, observations, and suggestions on the draft policy.

The public review period will be open for 15 days starting from 15.02.2024. All comments and observations must be submitted on the following email address:- eecoordination.dwss@gmail.com. Please ensure to include your name, organization and contact information with your submission.

EE (Coordination)
W/s & Sanitation
SAS Nagar

**POLICY ON
OPERATIONS & MAINTENANCE
OF
RURAL WATER SUPPLY
IN THE STATE OF PUNJAB**

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Abbreviations / Acronyms

CLI	Community Level Institute	NRDWP	National Rural Drinking Water Programme
CWR	Clear Water Reservoir	OHSR	Over Head Service Reservoir (also known as ESR)
DAP	District Action Plan	PACS	Primary Agricultural Credit Societies
DWSM	District Water and Sanitation Mission	PRI	Panchayati Raj Institution
DWSS	Department of Water Supply and Sanitation	PRWSS	Punjab Rural Water Supply and Sanitation
ESR	Elevated Service Reservoir (also known as OHSR)	PRWSSIP	Punjab Rural Water Supply and Sanitation Sector Improvement Project
FHTC	Functional Household Tap Connection	PSPCL	Punjab State Power Corporation Limited
FTK	Field Testing Kit	SAP	State Action Plan
GLR	Ground Level Reservoir	SBCC	Social Behaviour Change Communication
GPDP	Gram Panchayat Development Plan	SHG	Self Help Group
GPWSC	Gram Panchayat Water and Sanitation Committee. GPWSC is an amenities committee of the Gram Panchayat constituted under section 25 of Panchayati Raj Act 1994.	SLC	State Level Committee
HRD	Human Resource Development	SLI	Section Level Institute
IEC	Information Education & Communication	SLSSC	State Level Scheme Sanctioning Committee
ISA	Implementing Support Agency	SOP	Standard Operating Procedure
IVDN	In-Village Distribution Network	SVS	Single Village Scheme
JJM	Jal Jeevan Mission	SWSM	State Water and Sanitation Mission
KPI	Key Performance Indicator	TNA	Training Need Assessment
KRC	Key Resource Centre	UGSR	Under Ground Service Reservoir
LPCD	Litre per capita per day	VAP	Village Action Plan
MVS	Multi Village Scheme	VLI	Village Level Institution
NABARD	National Bank for Agriculture and Rural Development	WSS	Water Supply System

1 Introduction

The Department of Water Supply and Sanitation (DWSS), Government of Punjab (formerly known as the Public Health Department) is primarily entrusted with the responsibility of providing safe drinking water to the rural population and implementation of schemes for sewerage treatment and sanitation issues in the rural areas of the state. The department is also involved in the execution, operation and maintenance of various public health services such as water supply, sewerage, sanitation, air conditioning, fire-fighting works in government institutions and water supply & sewerage systems in four historical towns, namely – Anandpur Sahib, Fatehgarh Sahib, Faridkot & Sri Muktsar Sahib. The Department has created improved water supply infrastructure through various projects executed with financial assistance from the Government of India (through JJM¹, NRDWP etc.), World Bank (PRWSS & PRWSSIP), NABARD, state share etc. As a result, the Government of Punjab has achieved 'Har Ghar Jal' status on 16th March 2023 by providing tap water connections to 100% of rural households in the state. The State provides water supply at a service level of 70 LPCD with quality parameters conforming to BIS: 10500 (2012) drinking water – specifications norms. There are predominantly three types of water supply schemes in the State i.e.

- **Canal based water supply schemes:** The O&M cost are relatively high for such schemes due to treatment cost of water supply.
- **Tube well based water supply schemes:** These schemes are mostly in plain areas and have relatively lesser O&M cost but it depends on ground water quality also.
- **Water supply schemes in Kandi Areas:** These are semi-hilly schemes with low and scattered population living at high altitudes. The O&M cost are very high for such schemes due to high head pumping machinery, accessibility, high labour cost and repairs.

For the above schemes, there are three service delivery models in rural water supply sector of Punjab:

- **DWSS operated schemes:** These water supply schemes are operated and maintained by DWSS for which user fee is charged per connection from households, as per Punjab Government Notification.
- **GPWSC* operated schemes:** These water supply schemes are operated and maintained by GPWSC*. In such schemes, GPWSC is responsible for complete service delivery to customers, undertaking all required O&M works including repair and maintenance of the scheme, and collection of water charges from customers. However, these schemes managed by the Gram Panchayat Water & Sanitation Committee are not running well as all the villagers don't pay the water charges and the financial demand to operate and maintain the scheme are not completely met. Gram Panchayats are free to set their own water tariffs to ensure financial

¹"JJM" means: Jal Jeevan Mission, the Government of India programme envisioned to provide safe and adequate drinking water through individual household tap connections to all households in rural India.

*GPWSC is an amenities committee of the Gram Panchayat constituted under section 25 of Panchayati Raj Act 1994.

sustainability of RWS schemes. DWSS to provide necessary technical and backstopping support to ensure delivery of RWS services.

- **Large MVS schemes:** Due to water quality issues in District Moga, a large Surface Water Multi-Village Scheme (MVS) has been implemented. Fifteen (15) such large MVS (like Moga scheme) are being implemented in other districts such as Amritsar, Fatehgarh Sahib, Fazilka, Ferozepur, Gurdaspur, Hoshiarpur, Patiala, Rupnagar and Tarn Taran which is envisaged to serve a total of 1,718 villages. Many such schemes may also be constructed in future. In all such schemes, the project components, governance structure and tariff principles similar to Moga MVS scheme will be adopted. Full cost recovery will be foreseen i.e., collection of revenues to meet full O&M cost of bulk supplier of water as well as for intra-village O&M costs up to consumer doorstep.

This O&M Policy provides a strategy for the long-term, effective and sustainable operation and maintenance of water supply infrastructure in rural areas of Punjab. As per the 73rd amendment act of 1992, Schedule 11, Gram Panchayats are responsible for water supply services and the involvement of rural communities, GPWSC, SHGs and Gram Panchayats is paramount. This O&M policy aims to provide potable water of good quality through piped distribution systems to all households at an affordable price, ensuring long-term sustainability, higher service delivery standards, building institutional capacity with focus on energy efficiency, judicious water use, performance improvements of existing water supply schemes, social interventions, encouraging voluntary contributions, through IEC activities and timely resolution of consumer complaints.

2 Vision

The vision driving this O&M policy is as follows:

- Self-sustainability of water supply schemes
- Encouraging water conservation and metering
- Water quality assurance
- Improved service delivery and customer satisfaction
- Promotion of digital revenue collection and monitoring
- People's participation

3 Objectives

This Operations & Maintenance Policy has been envisaged to accomplish following objectives for rural water supply schemes:

- i. To provide adequate quantity of potable water of prescribed quality at affordable rates in the rural areas of Punjab including households, schools, aanganwadi centres, gram panchayat buildings, health care facilities, community centres, etc.
- ii. To minimize the breakdown of water supply schemes.

- iii. To sustain water supply schemes and various related infrastructures created by the department in rural areas both technically and financially.
- iv. To achieve service delivery parameters set forth by Government of India and Govt. of Punjab.
- v. To promote water conservation and minimize non-revenue water.
- vi. To adopt a decentralized approach involving Panchayati Raj Institutions (PRIs) and GPWSC and to handover all rural water supply schemes to GPWSC in a phased manner.
- vii. To strengthen institutional capabilities in rural water supply schemes effectively with active participation and partnering with Gram Panchayats, GPWSC, women SHGs, co-operative societies, etc. and encourage them to take over Operation and maintenance of all water supply schemes
- viii. To develop and empower skilled/semi-skilled human resources to meet various requirements related to operations and maintenance.
- ix. To promote water tariff collection through offline and online modes for financial sustainability of water supply schemes.
- x. To assist in improving and maintaining the financial sustainability of projects through cost recovery initiatives and exploring additional funding opportunities.
- xi. To provide additional financial support to run the water supply schemes

4 Scope of the Policy

This policy applies to all rural areas in the State of Punjab. The aim of this policy is to ensure the supply of drinking water of prescribed quality and quantity on a sustainable basis to the rural residents of Punjab at affordable rates. It encapsulates an overall framework for the operation and maintenance of water supply schemes within the framework of single-village schemes, the common facility of waterworks and the in-village infrastructure of multi-village schemes. This policy broadly covers various aspects to improve the participation of communities, Gram Panchayats, GPWSC, SHGs and in the operations and maintenance of their village's water supply schemes to ensure water conservation and increased awareness amongst masses.

5 Institutional Mechanism including the Roles and Responsibilities

A three-tier institutional mechanism shall be responsible for effective and smooth operations and maintenance of rural water supply schemes in the state of Punjab. It also facilitates the co-ordination between various functionaries and stakeholders involved in the effective implementation of the policy.

State Level:	State Water & Sanitation Mission (SWSM), DWSS
District Level:	District Water & Sanitation Mission (DWSM)
Village Level:	Gram Panchayats, Gram Panchayat Water and Sanitation Committee (GPWSC). This is an Amenities Committee of Gran Panchayat

constituted under section 25 of Panchayi Raj Act 1994

5.1 State-level

1. **SWSM²**: The Apex committee of SWSM under the chairmanship of Chief Secretary, Punjab with Administrative secretary, DWSS as its member secretary will be the overall Incharge and shall perform functions as per guidelines of Government of India (JJM), **state level rules guidelines and policy etc.** or any other programs in vogue from time to time.
2. **DWSS**: The Department of Water Supply and Sanitation, Punjab shall act as the nodal department for the implementation of operations and maintenance policy for rural water supply schemes in Punjab as per the guidelines of Government of India (JJM) or any other programs in vogue from time to time. The functions of DWSS broadly includes:
 - i. Strengthening the operations and maintenance strategy by formulating detailed Standard Operating Procedures (SOPs), in accordance with SWSM.
 - ii. Providing scientific, managerial and technical support to DWSM/Gram Panchayat/ GPWSC in identifying drinking water sources, source sustainability, and to take precautionary measures to avoid water quality contaminations, leakages, etc.
 - iii. Assisting and monitoring the operations and maintenance carried out for bulk water supply systems and infrastructure under MVS schemes that fall outside the jurisdiction of GPWSC.
 - iv. Promotion of digital systems such as invoicing software for maintenance of receipts, demand registers or ledger, etc.
 - v. Enforcing accountability at the DWSM³, GP/GPWSC level for ensuring appropriate adherence to the O&M Policy, particularly the critical functions relating to tariffs and cost recovery, etc.
 - vi. Formulating strategy of capacity building programs for local level including GPWSC /GP, women SHGs and co-operative societies, etc.
 - vii. List out the quality and standard of materials (including spare parts) that need to be procured by the GP/ GPWSC, in accordance with guidelines on procurement from the Punjab government.
 - viii. Monitoring and evaluating the physical and financial performance and management of the rural water supply schemes in the state.
 - ix. All rural water supply schemes will be handed over to GPWSC. The DWSS workers (regular, enlisted contractor and outsourced) deployed at rural water supply schemes will work under supervisory control of GPWSC in O&M of these schemes and their remuneration shall be borne by the DWSS, **and** their administrative control shall remain with DWSS.
 - x. DWSS to conduct regular maintenance for all technical equipment such as control panel, solar panel, submersible pumps and all the infrastructure built for drinking water services.
 - xi. The concerned JE of DWSS shall convene GPWSC meetings as and when needed.

²"SWSM" means State Water and Sanitation Mission, notified vide WSSD-BR2013/35/2021/5BR2/335 Dated 23-02-2023.

³"DWSM" means: District Water and Sanitation Mission formed as per notification no. WSSD-BR2013/35/2021-5BR2/335 dated 23-02-2023 for monitoring and implementing the project at the district level.

- xii. Revision of water supply tariff for Institutional and Industrial units in the rural areas
- xiii. The financial audit of the O&M activities shall be carried out by a Chartered Accountant (CA) empaneled by the DWSS/ Department of Co-operation annually and/or as and when required. The CA will be appointed by the DWSM and will report to the DWSS. The CA will verify the books of accounts, receipts, vouchers, bills, etc., maintained by the GPWSC and submit an audit report to the DWSS and the GP. The audit report will also be made public for transparency and accountability.
- xiv. To create an account on m-gram app to monitor revenue collection and utilization.
- xv. Develop a framework for continuous monitoring and evaluation of the policy implementation.
- xvi. Develop a three-year plan for all major repair and maintenance works.
- xvii. Incentivize GPWSC for good performance in ensuring sustainability of their water supply services.
- xviii. Formation of Block level Dispute Resolution Committee under chairmanship of EOPS / BDPO, JE of DWSS as Member Secretary, concerned Sarpanch of GP and 3 members nominated by Panchayat Samiti out of which one should be SC and one women..
- xix. Formulation of District level Dispute Resolution Committee under the Chairpersonship Deputy Commissioner, ADC (D)/ CEO ZP as Vice Chairman, Executive Engineer, DWSS as Member Secretary alongwith 3 members to be nominated by ZP out of which one should be women and one should be SC.

5.2 District-level

A. DWSM: The District Water and Sanitation Mission headed by the Deputy Commissioner of the concerned district with executive engineer as its member secretary (copy attached as Annexure-1) shall be responsible for overall implementation of O&M of rural water supply schemes in accordance with the guidelines of Government of India (JJM) or any other programs in vogue from time to time. DWSM (District Water and Sanitation Mission) shall broadly be responsible for:

- i. Planning and implementation of SOPs and guidelines to ensure quality drinking water in rural areas in respective districts.
- ii. Interacting with SWSM, DWSS, State Government and the Government of India.
- iii. Setting up an overall monitoring and verification processes to ensure that every household in the district has a functional tap water connection.
- iv. Undertaking prompt remedial action in case of any water contamination issues reported in the district.
- v. Ensuring availability of funds through convergence for rural water supply schemes.
- vi. Prepare regular maintenance schedule for clustered schemes for operation and maintenance.
- vii. Conduct monthly meetings to review the service delivery for water supply services.
- viii. To recommend utilization of Finance Commission tied grants available at the

disposal of Zila Parishad and Block **Samittis especially** relating to Water Supply for major repairs/upgradations of water supply schemes, to the respective Block Samitti and Zila Parishad.

5.3 Village-level

As part of decentralized governance, village-level institutions shall play a key role in the implementation, management, operation and maintenance of water supply systems in villages to ensure long-term sustainability.

1. **Gram Panchayat:** The GP shall ensure decentralized service delivery of water along with implementation of water supply projects, with the technical assistance, active support and guidance of DWSS, and shall be responsible for the following:
 - i. Providing safe drinking water and safe sanitation facilities shall be top priority of GP as these services are of public health significance. Any disruption of these services may affect health & wellbeing of residents.
 - ii. Gram Panchayat shall constitute Amenities Committee herein after known as GPWSC as Standing Committee of Gram Panchayat and ensure adequate representation from Women, the SC/ST communities, etc. In the event of dissolution of Gram Panchayat, the administrator appointed by the Deptt. Of Rural Development & Panchayat shall be chairperson of the GPWSC and will continue to work for O&M functions.
 - iii. Transfer Tied Finance Commission funds related with Drinking Water to GPWSC and adequate fund from other grants/income for the sustainable operation & maintenance of water supply schemes after getting the plan approved from DWSS. This plan should become part of GPDP of concerned Gram Panchayat.
 - iv. Coordinating with the GPWSC and seeking support from DWSM, DWSS and SWSM wherever required.
 - v. Communicating results of water quality testing done by the GPWSC and uploading on digital dashboard on a regular basis with technical support from DWSS.
 - vi. Providing GPWSC with necessary assistance for operations and maintenance, capacity building, behavioral change communication etc. with technical support from DWSS.
 - vii. DWSS shall provide technical assistance and handhold Gram Panchayats and GPWSC.
2. **Gram Panchayat Water and Sanitation Committee (GPWSC):** The Punjab Panchayati Raj act 1994 section 25(I) (III) states that the Gram Panchayat shall constitute “the Amenities Committee to perform functions in respect of education, public health, public works and other functions of the Gram Panchayat.
3. Section 25 (2)(a) further states that Each Standing Committee shall consist of not less than three and not more than five members including the Sarpanch and the Sarpanch shall be the ex officio member and Chairman of all these Standing Committee.

4. Section 25 2 (b) specifies that Each Committee shall be competent to co-opt. in such manner as may be prescribed, members of farmers clubs, mahila mandals, yuvak mandals and other similar bodies recognized by the State Government and representative of co-operative societies in the Gram Panchayat area shall also be co-opted to the Production Committee.
5. Section 25 (3) The Standing Committees shall perform the functions referred to in subsection (2) to the extent the powers are delegated to them by the Gram Panchayat
6. Ministry of Jal Shakti Department of Drinking Water and Sanitation Govt of India has issued Manual for the utilization of the 15 Finance Commission tied grants to Rural Local Bodies/ PRIs for water component
7. Para 11 of the manual states that village will have GPWSC/ VWSC.
8. Each GPWSC shall comprise of 5 members and can co-opt members as per guidelines of Jal Jeevan Mission of Govt. of India. It shall be a sub-committee of Gram Panchayat is essentially a core user committee comprising at least 50% women and suitable representation of marginalized sections of the village community. It is involved in conceptualizing, planning, execution and O&M of in village water supply and sanitation schemes. Gram Panchayat and/ or VWSC/ Pani Samiti ensure participation of the village community, including all habitations represented in the Gram Sabha, for their approval of the Village Action Plan (VAP). The Gram Sabha approves the VAP, including the sanitation and waste management activities by choosing the appropriate technologies suitable to local conditions, and selection of drinking water supply scheme in village based on the socio economic analysis and at least 3 techno economic feasibility options provided by PHE/ RWS Department.
9. In the event of dissolution of Gram Panchayat the administrator appointed by Deptt. of Rural Development & Panchayat shall be Chairperson of GPWSC.
10. Each Gram Panchayat shall constitute GPWSC in accordance with provisions of Section 25 of Panchayati Raj act 1994.and manual issued by GOI for utilization Finance commission grants This shall be a standing committee of GP. GPWSC shall be responsible for management and regular O&M of in-village water supply system including local water sources. JE DWSS shall be the technical member and convener of GPWSC. The meeting of GPWSC shall be attended by JE or any Govt. employee authorized by JE/SDE. The GPWSC shall discharge the following functions:
 - i. Plan, design, implement, operate and maintain the in-village water supply schemes and decide seasonal supply hours.
 - ii. Provide FHTC to every existing rural household and any new households that may emerge in future.
 - iii. Follow the SOPs and O&M guidelines with respect to all components of water supply infrastructure, including efficient usage of existing water supply infrastructure, regular cleaning of OHSRs / UGSRs etc.
 - iv. Fix water tariff and user charges through Gram Panchayat and timely collect

from every household for smooth operations and maintenance. GPWSC may also follow the tariff policy of state government adopted by DWSS. It may also encourage grants/ donations from community members/NRIs/NGOs/CSR etc.

- v. Supervise construction and ensure maintenance of in-village infrastructure including preventive and breakdown care, minor repairs, disinfection, remuneration of pump operator, cleanliness near water sources, water conservation measures, etc.
- vi. GPWSC shall open and maintain separate accounts for water. GP shall transfer the Tied grants to the respective accounts. GPWSC to ensure that the funds are utilized for the respective sectors in consultation with DWSS.
- vii. GPWSC shall have powers to frame bye-laws through Gram Panchayat including (but not limited to) penalizing defaulters, water wasters, illegal connection installers and the consumers installing tullu-pumps in consultation with DWSS. Such bye-laws shall not be violative of any act or policy of the state government or Govt of India. DWSS shall develop model bye laws to support the GPWSC in this regard.
- viii. The GPWSC shall have the flexibility to fix tariff through Gram Panchayat over and above the rates notified by State Govt.
- ix. The GPWSC shall have the powers to recover arrears of water charges, penalties /fines from defaulters through Gram Panchayat as arrears of land revenue through due process of law.
- x. GPWSC with prior approval of DWSS shall operate the scheme by employing staff based on actual requirements as per scheme size/type in accordance with Human Resource setup as prescribed below
 - a) Operator: Full time or part time at village level or cluster of villages as formed by DWSS
 - b) Accountant: One per 5-10 villages depending on the size the villages or cluster of villages as formed by DWSSor
The GPWSC shall have the flexibility to operate the scheme through SHG/NGO/PACS/ Contractor, etc. in consultation with DWSS.
 - c) This cost of the staff shall be reimbursed from user charges, voluntary donation and finance commission grants or any other source of funding available to Gram Panchayat subject to the guidelines issued by Controller Panchayati Raj Finance from time to time. Shortfall, if any, shall be borne by DWSS / Govt. of Punjab.
 - d) The GPWSC and GP shall prepare annual village action plan for operation and maintenance of water supply scheme and make it integral part of Gram Panchayat Development Plan. Such plan shall be uploaded at Gram Sawaraj Portal of Ministry of Rural Development and Panchayati Raj GOI.
 - e) The DWSS under the leadership of Deputy Commissioner shall ensure

that accounts of each GPWSC are audited by CAG empaneled Chartered accountant. The cost of audit shall be charged to tied grant under FFC.

6 Financial Mechanism

The State introduced the 'Punjab State Rural Water Supply and Sanitation Policy (PRWSS)' in 2014, with an objective to provide "100% coverage of all households in rural areas of Punjab with at least 70 liters per capita per day (LPCD) of potable water, supplied through 24x7 piped and metered individual water supply connections." It also highlighted the need for the decentralized approach by bringing Gram Panchayat Water and Sanitation Committees (GPWSC) to operate and manage various water supply schemes and with DWSS providing necessary technical support to GPWSC.

In October-2021, Govt. of Punjab released a tariff notification which revised water service charges for rural households to Rs. 50 per month per connection, which will be increased @10% annually. This notification is applicable to DWSS-operated rural water schemes, and it was stated that water service charges for GPWSC -operated schemes shall be fixed by respective GPs/GPWSC/Amenities Committee. However, it added that GPWSC/Amenities Committee may consider re-fixing the water service charges in light of the decision of the Council of Ministers dated 18.10.2021 to provide free power to rural water supply schemes.

Govt. of Punjab may issue tariff notification from time to time. However, to bridge the gap for financial sustainability funds from other schemes shall be dovetailed with O&M funds available with GPWSC:

- a) user charges, which is cost recovery through tariffs,
- b) 15th FC Tied grants,
- c) State funds,
- d) own source of revenue of Gram Panchayat subject to the guidelines issued from Controller Panchayati Raj Finance from time to time, and
- e) Contribution from NRIs/Donors (e.g. Bhai Kanhaiya ji Jal Sewa) received by GPWSC.

6.1 The Bhai Kanhaiya ji Jal Sewa Mission

It is a transformative initiative designed to tackle the pressing issue of clean water access in rural areas. Through a multi-pronged approach, this mission seeks to not only enhance water infrastructure but also foster community engagement and responsible water use. The GPWSC will look after this mission and encourage donations in cash or kind for the improvement /O&M of water supply scheme. The GPWSC will maintain a separate bank account for this mission. Voluntarily donations shall be deposited in this account and be utilized for improvement/O&M of water supply scheme. The initiative encompasses the following key aspects:

A. Voluntary Donations for Water Infrastructure:

- i. Encouragement of NRIs, individuals, institutions, and industrial establishments to contribute funds voluntarily to improve drinking water infrastructure in rural

communities.

- ii. Creation of transparent mechanisms to ensure proper fund management and accountability, including meticulous recording and channeling of donations into designated bank accounts.
- iii. Suitable motivational awards shall be given in well-deserved cases.

B. Inclusive Water Bill Support:

- i. Promotion of inclusivity by allowing individuals to contribute towards settling water bills for financially disadvantaged members of the community.
- ii. Mitigation of financial barriers that might prevent some individuals from accessing clean water.

C. Sustainable Water Supply:

Utilization of donated funds to maintain, repair, and upgrade water infrastructure, ensuring a consistent and reliable supply of safe drinking water to rural areas.

D. Celebratory Donations:

Gram Panchayats to encourage affluent community members to contribute to the "Jal Ghar" (Water House) on significant occasions such as weddings and childbirths.

Integration of philanthropy into celebratory events to support ongoing water initiatives.

E. Responsible Water Use and Funding:

- i. Implementation of a progressive system where users consuming larger amounts of water contribute additional funds to support the operation of the local water supply scheme.
- ii. Promotion of responsible water use and fair distribution through financial incentives.

F. Community Engagement and Collective Responsibility:

- i. Cultivation of a sense of collective responsibility among community members towards improving water access.
- ii. Encouragement of community involvement and participation in the initiative's projects and activities.

G. Long-Term Sustainable Development:

- i. Addressing both immediate and long-term water-related challenges to promote sustainable development in rural regions.
- ii. Enhancement of the overall quality of life by ensuring reliable access to clean water resources.
- iii. Willing parties or individuals shall be encouraged to adopt full or part operation and maintenance of water supply scheme/s.

The Bhai Kanhaiya ji Jal Sewa Mission represents a collaborative effort to bridge the gap between water availability and accessibility in rural India. By combining financial support, community participation, and responsible water management, this initiative strives to create

a lasting positive impact on water infrastructure and the lives of those in underserved communities.

6.2 Financial Components of Operation and Maintenance for Rural Water Supply Schemes:

- A. Wages:** The GPWSC shall cover wage costs of the staff deployed using the collection of user charges and FC Grants, voluntary grants, and own source revenue. The wages of DWSS staff will be as per the guidelines of Government of Punjab and shall be paid by DWSS.
- B. Minor Repairs:** Expenses for minor repairs, including regular maintenance of water facilities, civil structures, motor and pump repairs/rewinding, control panel and switch starter fixes, chlorinator maintenance, and repair of leakages in water pipelines, will be borne by GPWSC. These costs will be covered through user charges, FC grants, voluntary donations, and Gram Panchayat funds. DWSS will provide technical help whenever required.
- C. Periodic Maintenance:** DWSS will conduct periodic maintenance tasks such as painting, whitewashing of civil structures, machinery replacements, control panel upkeep, and chlorinator servicing. The frequency of these replacements will be determined by the Technical Committee of Chief Engineers at DWSS.
- D. Major Repairs:** All significant repairs, such as the restoration of water supply systems damaged due to floods, earthquakes, etc., will be carried out by DWSS. Additionally, DWSS will perform scheme augmentations as needed from time to time. Finance Commission tied grants especially relating to Water Supply available at Block Samiti and Zila Parishad shall be used keeping in view the recommendation of DWSSM.

7 Key components of operation and maintenance

Operation & maintenance is important for ensuring functionality of household tap connections as per prescribed quantity and quality. For this, the state focuses on ensuring the long-term sustainability of the water supply schemes by putting effective mechanisms in place for operations and maintenance.

7.1 Developing operations and maintenance processes

The executive committee of SWSM shall outline the operations and maintenance processes of in-village water supply systems; including preventive, routine and breakdown maintenance; through detailed SOPs in the following manner:

- i. Developing processes for O&M of schemes and other related aspects such as water metering, data management, communications and capacity building.
- ii. Identifying key performance indicators (KPIs) to assess the O&M status and the delivery of designed outcomes.
- iii. Laying down procedures for routine tasks, checks and inspections at pre-determined intervals viz., daily, weekly, quarterly, bi-annually or annually.
- iv. Designing the guidelines on management and maintenance of records, ledgers,

cashbooks, stock, electricity charges, chemicals consumption, etc. including responsibilities, timelines and steps for sustainable O&M.

- v. Providing guidance on facility management and infrastructure housekeeping at the GP level, including the routine cleaning, safe & planned maintenance of structures and infrastructure contained within the in-village water supply schemes and near the water sources etc.

7.2 Ensuring potability and sustainability in water supply distribution

In order to improve the sustainability of the water supply infrastructure in rural areas of Punjab, the detailed SOP formulated shall focus on the following:

- i. Ensuring harmonious use of surface ground water and rainwater at the local level, to ensure availability of water without disruption and to optimize the utilization of sources.
- ii. Ensuring regular checks and maintenance of assets created under source sustainability measures such as rainwater harvesting structures, borewell recharge structures etc.
- iii. Ensuring that water safety plans and hygiene surveys are built into the system at local levels to prevent bacteriological, contamination and other water quality-related risks pertaining to public health and corresponding operational control measures to reduce the risks.
- iv. Improvise ways through which service improvement in water supply, maintenance of assets and tariff collection can be made more efficient.

7.3 Improved water quality monitoring and surveillance

To ensure water quality standards; DWSS, Government of Punjab has set up a three-tier network of laboratories at state, regional and district/block levels, which are open to public/ other departments / institutions, wherein samples from private/public sources can be tested at nominal charges. The detailed SOP regarding water quality monitoring and surveillance shall be prepared which illuminates the following:

- i. Ensuring that the supplied water is compliant with BIS:10500 (2012) drinking water specifications with regular water quality testing for chemical, bacteriological and heavy metal parameters to mitigate the risk of water-borne diseases and health impacts.
- ii. Streamlining operations and timelines for water quality testing in accordance with the guidelines shared by Government of India.
- iii. Efforts to be made for NABL accreditation/recognition of all laboratories along with digitalization of processes with software interventions such as LIMS. These laboratories shall be managed by professionals such as senior chemist, chemist/microbiologist, junior chemist, etc.
- iv. Establishing procedures for, minimum frequency of water quality testing alongwith special case and process in case of outbreak of diseases due to water contamination:

- Basic chemical parameters – Annually
 - Heavy metals – Annually
 - Bacteriological parameters – Twice a year (Pre and Post Monsoon)
 - Residual chlorine – Daily in 3 locations
- v. Highlighting process of sanitary inspection survey to identify potential sources of contamination, sampling methodology, frequency of testing, guidelines to declare quality affected habitation, etc.
 - vi. Ensuring regular testing of all water supply sources along with schools, aanganwadis as well as atleast three households in all villages.
 - vii. Standards and guidelines for the IEC campaigns to provide trainings on use of Field Testing Kits to women and local community members in every village. These FTK's or its reagents shall be procured periodically by DWSS and distributed to the GP/ GPWSC/Amenities Committee/ schools/ field representatives for regular water quality testing.
 - viii. Guidelines on undertaking prompt remedial measures by DWSS member secretary for the samples which are found contaminated while tested using FTK or in laboratories.

7.4 Technical Sustainability of the water supply schemes

To ensure technical competence and sustainability, DWSS/ GPWSC shall deploy skilled technical persons in all water supply schemes to ensure their effective operation and maintenance and long-term sustainability. For this purpose, DWSS may hire an agency that provides support staff such as helpers/technicians or junior technicians, as per requirements. In addition, DWSS/GPWSC may budget for financial support for the remuneration of such persons deployed in water supply schemes. The training unit of DWSS shall ensure the training of people in rural areas to meet the need for skilled labor for the long-term functionality and O&M of the water supply systems.

7.5 Financial Sustainability of the water supply schemes

- i. GPWSC shall ensure 100% FHTCs in the village and 100% cost recovery through collection of tariff/ user charges. However, in case of any short fall or gap, budgetary support shall be provided by the State Government, 15th Finance Commission grants, among others. Additionally, to ensure that water supply schemes operate sustainably, funds or services must be used in convergence with other programmes such as MGNREGA (e.g. Van Mitra at Water Works funds available at GP level, District Administration, MPLAD, CSR activities etc. Moreover, collection of funds as grants / donations from willing villagers/ NGOs etc. can also be made.
- ii. Repair of RO plants and other water purifying plants installed in the villages shall be the responsibility of the concerned GPWSC. Funds can be utilized out of user charges, finance commission funds, other GP incomes and/or other available funds with them.
- iii. The revision of tariff/user charges can be done at par with inflation so that at least the O&M cost can be covered. In case of shortfall, state/central government grants for

water can be utilized.

- iv. DWSS through DWSM shall prepare an annual O&M budget taking into consideration the requirements of village level infrastructure, which would include components pertaining to power consumption, contingency costs, user-charges and considering different sources of revenue for cost recovery.
- v. The cost for all major expenditure and procurement of disinfectants & water quality field test kits shall be borne by DWSS.
- vi. DWSS/GPWSC shall also focus on improved billing and collection outcomes, including community awareness on tariff break-up and household water charges. Volumetric-based tariffs can be adopted, allowing each household to be billed on the basis of the amount of water consumed for the billing period. This tariff mechanism must ensure that operation & maintenance expenditure is covered. User-friendly billing systems (such as online payment systems) shall be adopted to improve billing outcomes.

7.6 Financial management of water supply schemes through cost recovery measures

O&M costs must be recovered through the collection of user charges, while accounting for the subsidies being provided. A robust tariff structure shall be put in place to ensure that beneficiaries are billed for the amount of water consumed, thus establishing a sense of parity while also ensuring that the schemes are capable of recovering the costs incurred.

- i. The O&M cost components include all expenses incurred to ensure potable quality supply to all households including salary, energy, repair & maintenance, chemicals and contractor payments, etc. These O&M expenses shall be done from tariff collections, or any subsidies provided by the State Government.
- ii. Suggestive water tariffs which can be adopted by the Gram Panchayat, are as under:
 1. **Fixed Tariffs:** Flat billing rate regardless of consumption.
 2. **Area-Based Tariff:** Higher water charges if the size of holding/members of a household is higher.
- iii. The panchayat has the option to embrace the "Bhai Kanhaiya Ji Bachat Yantar" (water meter) for a precise volumetric billing approach, fostering the community to imbibe the habits of water conservation. In case Panchayat adopts metering system, other systems which may be adopted are :-
 - a) **Uniform Volumetric Tariff:** Tariff is proportional to the amount of water consumed with uniform pricing across units.
 - b) **Increasing Block Tariff:** Tariff of the unit charge is kept constant for a specific amount of water consumed and is then increased basis an increase in consumption.
 - c) **Two-Part Tariffs:** Includes a fixed charge component basis the amount of water consumed (corresponding to the fixed cost of production) and a proportional component (corresponding to the marginal cost).

- iv. A monthly or bi-monthly collection mechanism shall be put in place as per feasibility to ensure timely tariff collection. The digital payment systems will help in ensuring timely payments while also bringing in transparency and accountability. DWSS has developed digital application named as m-Gram seva, which can be utilized for the revenue collection and account maintenance.

7.7 Human Resources

- i. The O&M work will be carried out by trained personnel to ensure uninterrupted water supply to the village households on a regular basis. For this, local resources shall be trained and utilized effectively. These trainings to operators and SHGs shall be financed and conducted by DWSS. The work required to be carried out by the trained personnel for operation and maintenance shall be enumerated in SOPs. DWSS / GPWSC are to ensure that O&M staff shall carry out their respective roles and responsibilities as listed in the SOPs.
- ii. Standard Operating Procedures shall be developed to assist operators, contractors and implementing agencies with the O&M of rural water supply schemes in strengthening human resource capacities across the value chain.

7.8 Capacity building and performance monitoring

- i. Adequate training arrangements for all stakeholders shall be done by DWSS training unit which shall include DWSS officials, contractors, PRIs and staff at the GP level. These could be carried out through online and offline workshops, preparation of training modules, audio-visual aids, etc.
- ii. To instill a sense of community ownership towards water supply infrastructure, quality and tariff payments; various behavioral change strategies and IEC campaigns shall be implemented to increase rural participation.
- iii. The performance of such trainings and campaigns shall be monitored and analyzed for developing and implementing best practices.

7.9 Grievance redressal and feedback mechanism

To respond efficiently to citizens' grievances, DWSS has established a 24X7 Toll free helpline no. 1800-180-2468 or any other number or mechanism where consumers can register their grievances related to water supply services with automatic transfer of complaints to concerned JE / SDE/ GPWSC & higher offices for its resolution. The department shall continue to improve the service delivery while observing the following basic principles:

- i. Develop and maintain a robust system of registering, sorting, managing, and responding to the grievances by using modern technologies.
- ii. Improve consumer outlook towards public water supply infrastructure by taking regular feedbacks on service delivery.
- iii. Establishing accountability of technical staff for providing efficient service delivery. In GPWSC -run schemes, Chairman, Secretary GPWSC, Technical Member cum Convener GPWSC and GPWSC -employed pump operators shall be accountable

- for supplying water with higher service delivery parameters.
- iv. The platform shall prepare data-rich reports that give an insight into the grievances and be reported to the government.
 - v. Timely resolution of complaints with benchmarked ideal time allocation and automatic escalation to next authority in hierarchical order.

8 Additional Areas of Focus for Effective and Sustained Operation and Maintenance

The detailed SOP for operation and maintenance of rural water supply schemes shall also broadly include the guidelines on the following:

8.1 Energy Conservation

Adoption of energy efficient machinery and use of solar power shall be encouraged as part of sustainable Operation & Maintenance. Electricity bills shall be monitored thoroughly to avoid any surcharges and necessary measure such as installation of shunt capacitor, load enhancement be taken accordingly. All efforts shall be made by all stakeholders in material savings, reduced emissions, extended equipment life and reduced maintenance requirements.

8.2 Disinfection

Drinking Water shall be disinfected before supplying to remove all pathogenic micro-organisms/bacteria to make water safe for drinking purposes. The O&M stakeholders shall follow suitable methods of disinfection, under overall supervision of DWSS.

8.3 Conservation of Water and Ensuring Service Delivery

- i. Over-extraction of groundwater shall be discouraged.
- ii. All stakeholders shall promote and practice judicious usage of water with reducing and recycling methodologies for a water secure future.
- iii. Water conservation techniques and ground water recharge structures shall be encouraged among O&M stakeholders.

8.4 Digital Technology interventions

Leveraging technology and digitization can go a long way in ensuring the smooth, seamless and efficient coordination of activities between various stakeholders of the water supply system. Under this policy, the State of Punjab plans to adopt the following technological interventions:

- i. DWSS shall manage digital platforms at the district / GP level, which will include mobile application (m-Gram Seva App) for generating water tariff invoices, historic payment reports and enable digital payments from end users. These shall be monitored to understand water consumption habits.
- ii. DWSS shall encourage the use of existing billing software to support billing, collection, accounting and also assist GPWSC/Amenities Committee with collection

of consumer tariffs and to ensure its regular upkeep and maintenance.

- iii. DWSS shall develop and maintain mobile application (Jal Seva App) for efficient and effective monitoring of service delivery. This application shall help monitor the specific service delivery parameters and infrastructure of the water supply schemes. The application shall help monitor:
 - a. Functionality of scheme.
 - b. Water supply hours.
 - c. Electricity expenses and payment (if applicable).
 - d. Records of GPWSC meetings.
 - e. Status of chlorination at tail end.
 - f. Revenue and expenditure.
 - g. Status of other water supply related infrastructure, etc.
- iv. DWSS shall encourage the use and implementation of sensor-based remote measurement & monitoring system using IoT applications, which will ensure reliability & functionality of rural water supply scheme through monitoring of service level parameters.

9 Support Activities

In collaboration with government training institutes, ISAs and KRCs; DWSS shall ensure training, awareness and sensitization of communities on the judicious use of water, payment of monthly charges and ownership, water quality issues, building capacities of GP/GPWSC to plan, implement, manage, operate and maintain in-village infrastructure and sustainable O&M of rural water supply schemes.

9.1 SBCC⁴, IEC and Capacity building activities

The capacity building and IEC activities shall be undertaken for the GP/ GPWSC/Amenities Committee, pump operators, technical staff, service and repair staff, local communities, social staff and other stakeholders involved in the water supply schemes. Various campaigns shall be undertaken by social wing, DWSS for the following:

- i. Community awareness on benefits of taps in kitchen, discouraging storage of water, installation of water conservation measures, judicious use of water, adopting metered water connections, removal of existing tullu pumps⁵ and regular water quality testing.
- ii. Handholding of GP/GPWSC/Amenities Committee on financial aspects, O&M plan, tariff finalization, records management, etc.

⁴ SBCC means: A social intervention, namely, social behavior change communication, which is undertaken for affecting change in behavioral patterns of society.

⁵ Tullu pumps are small booster pumps that are typically used by households for drawing water to overhead tanks from the underground tanks or direct on public pipelines. Installation of tullu pumps direct on pipeline is prohibited as these disrupt the pressure in the pipe network.

- iii. Training on roles and responsibilities of pump operators, plumbers for operation & maintenance, water quality aspects and uploading results on digital portal for water quality testing and disinfection measures.
- iv. Developing a sense of collective responsibility towards the water supply schemes by the rural community.

9.2 Social Behavioral Change Communications

The department shall provide requisite support to GPWSC/Amenities Committee/GP/DWSSM in creating strategies for various social behavioral change communications. The role of children and school students shall be focused, and sensitization be done by engaging in various activities such as slogan writing, essay writing, drama / skit, poster making, debate, extempore speeches, storytelling etc.

10 Tariff Structure

Currently, the Punjab Government provides free power to run rural water supply schemes. For department run schemes (SVS & MVS), the tariff has been fixed by the Government (notified by Govt of Punjab, Department of Water Supply & Sanitation (B&R-2) Notification 7/19/2001-6B&R-II/754 Dated 29-10-2021) which will be revised from time to time based on amendments. In the GPWSC run schemes, respective Gram Panchayats are free to fix, collect water tariffs, or can adopt the same tariff policy as announced by the Government. GPWSC can also engage SHGs / NGOs or any other organizations for maintenance of water supply assets and for the collection of water tariff so as to ensure financial sustainability of water supply schemes. In this regard, the following process shall be followed:

- A. Single Village Schemes:** GPWSC is responsible for O&M of all in-village infrastructure components, i.e., from source to village distribution network, including payment of pump operator, electricity charges (if applicable), chemicals, spare parts, repair of pumps, machinery and distribution network etc. GPWSC shall collect monthly charges from individual households as per the tariff charges fixed by Gram Panchayat/ Government of Punjab.
- B. Multi Village Schemes:** The GPWSC shall collect monthly charges from individual households as per the tariff charges fixed by the Gram Panchayat. GPWSC shall pay bulk water consumption charges to DWSS/SLC/Water Utility Entity and the remaining amount of collected user charges can be used for in-village infrastructure maintenance.

Gram Panchayats shall be free to revise the tariff, as and when required.

11 Amendments to the Policy

This Policy is a dynamic document that will be modified over time for effectively addressing emerging challenges, based on best practices and learnings during its implementation. Such modifications/amendments to this Policy shall be carried out by DWSS with the approval of Hon'ble Chief Minister, Punjab.

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