**PUNJAB REVENUE IMPROVEMENT POLICY**

Department of Water Supply and Sanitation, Government of Punjab

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1. **Background**

The Government of Punjab 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.” The policy also covered other objectives such as Sanitation Coverage, Hygiene, Sustainable water supply, Cost recovery, Water regulation, Environmental sustainability, User participation and Institutional capacity. 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.

The policy also encouraged 100% cost recovery. The policy highlighted that the level of cost recovery from schemes run by DWSS is around 30% largely because of poor number of connections as a percentage of households (number of connections to total number of households were between 30-40%). Lack of demand driven approach and technical assistance to GPs were also cited as reasons for such low cost recovery.

At present, the Department of Water Supply and Sanitation (DWSS), Government of Punjab, is responsible for providing potable drinking water to the rural citizens of the state of Punjab. Out of 13559 rural habitations, DWSS is operating and maintaining (O&M) 8821 habitations and O&M of 4738 habitations is being taken care of by concerned GPWSCs.

DWSS has recently notified the revenue collection strategy for DWSS operated schemes vide notification number, 13/3-2018-5-B&R-II/29 dated Chandigarh – 11-01-2018 and the state has allowed GPWSCs to frame their own tariff and revenue collection mechanism but to ensure financial and operational sustainability. DWSS has set up field office which will oversee functioning of these GPWSCs and monitor service delivery.

While the ‘Punjab State Rural Water Supply and Sanitation Policy (PRWSS)’ details the demand driven approach and support mechanisms for GPs, there is a need for a State Level Revenue Improvement Policy, which shall primarily focus on mechanisms of further improving the revenues from water supply operations and enhance the cost recovery across all rural water supply schemes in Punjab.

1. **Need for State Level Revenue Improvement Policy**

An assessment of approximately 2200 schemes operated by DWSS under 40 divisions across all 12 circles was undertaken which is as detailed in the table below.

|  | **Overall O&M Deficit** | | **O&M Deficit per HH connection** | |
| --- | --- | --- | --- | --- |
| **2015** | **2016** | **2015** | **2016** |
| Number of household connections in 2200 schemes | 5.02 lakhs | 5.17 lakhs | 5.02 lakhs | 5.17 lakhs |
| Overall O&M costs including energy costs | INR 196.10 crores | INR 213.20 crores | INR 3906 per connection | INR 4124 per connection |
| Billing undertaken in ~2200 schemes | INR 47.65 crores | INR 50.32 crores | INR 949 per connection | INR 973 per connection |
| Revenue collections from ~2200 schemes | INR 27.60 crores | INR 30.60 crores | INR 549 per connection | INR 591 per connection |
| Cost recovery | 24.3% | 23.6% | 24.3% | 23.6% |
| Collections as a percentage of O&M Cost | 14.1% | 14.3% | 14.1% | 14.3% |

The overall cost recovery of DWSS operated water supply schemes are estimated at around 24%. Collection efficiency is estimated to be around 60-70% for water supply schemes operated by DWSS which means only 16% of overall O&M costs is collected from user charges. The cumulative arrears work out close to INR 800 per connection, which was more than annual collection (INR 591) per connection in 2016. The overall cost recovery of GPWSC operated schemes (estimated at 40%) are estimated to be better than DWSS.

Low cost recovery across various schemes is not only due to gap in robust billing and collection mechanisms but also due to technical inefficiencies and lack of institutional focus on revenues. This is also partially due to dependence on budget transfers from government. Inadequate O&M funds led to several water supply schemes rendered ‘out of service’ due to lack of funds to address infrastructure replacements. Most of them are multi-village schemes.

DWSS operated schemes follow a manual and decentralized system of billing and collection at present. Given that the updation of village level ledgers, record keeping at Bill Clerk Level, and maintenance of bill lists are manual in nature and sub-division offices are responsible for the same. Given the current context, there exists scope for unregistered connections, under-reporting of collection, and possibility of late receipt of bills by consumers resulting in huge arrears, all ultimately leading to poor billing and collection efficiencies.

It is also seen that the focus is on asset creation rather than operation and preventive maintenance for most rural water supply schemes in Punjab. The costs of repairs were estimated to be less than 0.50% as a percentage of capital costs. Less than 10% of overall O&M costs were spent on repairs in 2016, which has reduced from about 12.5% in 2012. Manpower (50%) and energy (25%) accounted for majority of O&M costs of a rural water supply scheme in Punjab.

Additionally, flat rate tariffs are designed for 70 lpcd but actually DWSS is supplying a higher quantity leading to a higher O&M costs due to higher power charges which ultimately leads to lower costs recovery. More than 90 lpcd is being produced to supply water to connected population which is about 85-90% of overall population wherein less than 60% have connections and pay for water. This presents a scope for generating additional revenues by increasing the number of household connection in the existing supply areas with the same overall quantum of water and using the existing infrastructure.

Presently, the billing and collection activities are carried out at the Sub-division level in conjunction with the Division office, with billing and collection practices differing across divisions, in the absence of clear roles, responsibilities and a standard operating procedure. Inadequate and inconsistent reporting protocols for revenue are followed across divisions and circles makes monitoring of revenue difficult. Owing to limited institutional focus on revenue management, and manual billing and collection processes, inefficiencies exist that hamper revenue realization for the department, thereby impacting cost recovery.

1. **Objectives of Revenue Improvement Policy**

DWSS experiences significant financial stress owing to numerous commercial, operational, institutional and process related issues highlighted earlier that adversely impacts financial sustainability of rural water supply schemes.The Punjab State Level Revenue Improvement Policy will attempt to address all these issues in a systematic manner. The objectives of this policy are as follows:

1. Understanding overall revenue flows required to sustain water supply services at state level
2. Recommended sources of financing for expansion of schemes (capex) and financing O&M expenditure
3. Adoption of revenue improvement strategies
   1. Designing of Water Tariffs and gradual movement to volumetric tariffs across the state
   2. Increase in number of household connections
   3. Computerized Centralized Billing and Collection System
   4. Institutional focus on Revenue Management
   5. Standardization of Billing and Collection Process across the state
4. Strengthened Governance Mechanisms
5. Encouraging transfer of schemes to GPWSCs
6. Dispute Redressal Mechanisms
7. **Understanding overall revenue flows required to sustain water supply services at state level**

At present, DWSS requests Government of Punjab for Demand for Grant on the account of electricity charges and manpower costs. Grants for electricity charges was estimated at INR 100 crores in 2017-18 grants for manpower costs was estimated at INR 48 crores in 2017-18. As per the government order issued by DWSS, each division is required to spend 75% of the revenues collected (estimated at INR 85 crores in 2017-18) on electricity charges additionally and each division is required to spend remaining 25% of the revenues collected on repairs and maintenance.

Due to lack of last mile connectivity, while about 91% of rural areas of Punjab is covered with water supply about 50% of rural households in Punjab has water supply connections at individual household level[[1]](#footnote-2). As DWSS strives to bridge this gap, the number of water supply connections is expected to increase by about 50% by FY 2021-22 which is expected to correspondingly increase the revenues by 50% to INR 125 crores (without considering the impact of tariff escalation).

As a result, each division under DWSS shall strive to fund the increase in electricity costs from the increase in revenues and dedicate 75% of revenues towards electricity expenditure. Division offices of DWSS shall spend the remaining 25% on repairs and maintenance activities and other operational costs.

DWSS spends around INR 48 crores towards manpower costs towards a workforce of 9,525 people including gazette and non-gazette posts against the sanctioned post of 10,991. There are about 16.56 lakhs connections in rural areas of Punjab which is expected to increase to 24 lakhs by 2021-22. DWSS shall strive to serve the additional connections without increasing the number of sanctioned posts. Any increase in manpower costs shall be met from 25% of revenues allocated for repairs and maintenance by the division offices.

Government of Punjab shall continue to provide Demand for Grants to DWSS both on the account of electricity charges and manpower costs to the tune of not more than INR 100 crores on the account of electricity and not more than INR 50 crores on the account of manpower costs.

It is seen that repairs, replacement preventive maintenance and breakdown maintenance is not given due importance by DWSS across divisions. Since 25% allocation of revenues to repairs and maintenance is not enough to adequately finance the repair and maintenance requirement, Government of Punjab shall create a R&M Fund (repairs and maintenance fund) with DWSS. The R&M Fund shall be to the tune of 2% of estimated replacement value of water supply assets under DWSS. R&M Fund shall be in addition to Demand for Grants for electricity and manpower.

1. **Recommended sources of financing for expansion of schemes (capex) and financing O&M expenditure**

For expansion of schemes (capex), DWSS is mobilizing funds from World Bank, NRDWP, NABARD, Swachh Bharat Mission in addition to loan / grants from Government of Punjab. In future, DWSS shall continue to fund the capital expenditure on expansion of schemes from the above funding sources.

For financing O&M expenditure, Government of Punjab shall provide for Demand for Grants to fund electricity charges and manpower costs. Government of Punjab shall also provide for R&M Fund for funding cost of repairs, replacement and maintenance activities. The division offices shall allocate 75% of revenues towards the electricity costs and the remaining 25% towards repairs and maintenance and other operational activities including manpower costs. In addition, funds from NRDWP allocated for repairs and maintenance activities shall also be spent on repairs and maintenance.

1. **Adoption of Revenue Improvement Strategies**

DWSS shall strive to improve revenues through various strategic measures including but not limited to the following:

* 1. **Designing of Water Tariffs**

At present, DWSS is charging flat tariffs in most of the schemes operated by them. DWSS shall strive to gradually move to a volumetric increasing block tariff (IBT) system wherein the water conservation is encouraged by charging higher rate for higher consumption. DWSS will decide the water consumption slabs and the rates associated with each slab provided with adopt the following principles:

* DWSS shall follow volumetric increasing block tariff (IBT) for all water supply schemes operated by DWSS
* DWSS shall take into account revenues from existing connections for meeting 100% cost recovery of operation and maintenance costs. Additional revenues from the new connections shall be accumulated and shall be utilized for funding asset replacement in future
* DWSS shall undertake a detailed assessment of cost of operation and maintenance while designing water tariffs
* DWSS shall account for cost of preventive maintenance (3-5% of the estimated capital costs) while designing water tariffs
* DWSS shall design the tariff considering affordability of water especially for the low income households.
* Tariffs shall be subject to pre-determined annual escalation. Further after every 3 years, tariffs shall be reviewed by Government of Punjabor an independent regulator appointed by the Government of Punjab so as to ensure the policies and principles as set out by Government of Punjab is adhered to.
* To assess scheme level financial sustainability, the financial system at scheme level shall be ring fenced. Annual balance sheet and profit & loss statement shall be prepared transparently by DWSS.
* Scheme level cross subsidies may be directed to schemes in hilly areas and water quality affected areas as desired by DWSS and Government of Punjab.
  1. **Increase in Number of Household Connections**

There exists a significant scope for monetizing the existing infrastructure by increasing the number of connections. There is a significant potential of earning higher revenues, without enhancing the quantum of water supplied and only a marginal increase in operating costs – resulting in relatively more cost efficient operations of these schemes.DWSS shall initiate steps and provide incentives for increasing the number of connections which may include

* Providing additional connections at one-time nominal charges / free
* Legalization of illegal connections with one-time nominal charges
* Providing a one-time discount on settlement of arrears on discontinued connections which were discontinued due to non-payment of arrears
* Putting a penalty for installation of Tulu Pump/ Booster Pump directly on water supply distribution pipe line so as to encourage individual water supply connections
* Putting a penalty for non-installation of ferrule at water connection

As per IMIS database format C30,the population with access to PWS water is estimated at around 74%. Out of 123.14 lakhs population in rural Punjab there were about 91.29 lakhs of population with access to PWS water. As per IMIS database format C36, about 50% of households in rural Punjab had individual PWS connections. Out of 32.98 lakhs households on Punjab there were about 16.56 lakhs PWS connections.

DWSS shall strive to increase the PWS coverage from 74% to about 90% by 2021-22. DWSS shall also focus on last mile connectivity and shall strive to increase the percentage of households with PWS connection from 50% to about 75% by 2021-22. As a result, the number of connections is expected to increase from 16.26 lakhs to 24 lakhs by 2021-22.

* 1. **Computerized Centralized Billing and Collection System**

To address the present day constraints of low revenue realizations, DWSS shall install a Computerized Centralized Billing and Collection Systemwhichwillbe maintained at the Head office at the State level. Asa precursor activity to the computerization of the billing and collection process, DWSS will initiate computerization of ledgers &passbook which is aligned to the centralized billing software to be developed (electronic consumer-wise passbook). DWSS will undertake collection on a performance based model / franchise model (empanelment of contractors for collection) or through NGOs / SHGs. Additionally, DWSS will strive to provide interface to internet for

* Printing / viewing the bill / passbook through app-based / web-based portals
* Paying bills using credit card/ debit cards/ bank transfer/ UPIs / mobile payment applications
* Reminders / confirmation for payments through SMS / email / apps
* Bharat Bill Payment System

DWSS will strive to use this centralised information of state level consumer database on billing and collection for undertaking analysis on customer segmentation, willingness to pay, collection patterns, default-arrear patterns etc.

After implementation of computerization of the billing and collection system, DWSS shall develop and implement an M&E system that is integrated with Computerized Centralized Billing and Collection System. The system will be used to undertake basic analytics, to generate periodic analytical reports at various levels, which will help in decision making at the Division/Sub Division levels. Additionally, this M&E will be usedfor appropriate target setting and hence defining accountability for revenue realization, in conjunction with the institutional measures that have been recommended below.

* 1. **Institutional Focus on Revenue Management**

At Head Office Level

At the Head Office level, DWSS will institute a formal structure in form of a Revenue Wing headed by a Chief Revenue Manager (CRM) who shall be responsible for revenue management activities and tasks.CRM shall be supported by 1 (one) Revenue Manager and 2 (two) Revenue Assistants. The broad responsibilities of thisRevenue Management Wing at head officeshall be responsible for state wide monitoring and analytics in areas specific to:

* Water consumption, billing, collection and arrears payment data to understand consumer profiles and water usage patterns/behaviors periodically
* Analytics to segment consumers for non-payment and designing rebates / penalties
* Develop arrears payment incentive schemes, early dues payment incentive schemes to improve revenue realizations
* Leakage management & analysis
* Achieve equity in distribution, and monitor distribution as per scheme design
* Preparation of Billing and Collection Standard Operating Procedure (SOP)
* Coordination for training on SOP
* Communication campaigns and monitoring the development and dissemination of IEC collateral for water conservation awareness, communication strategy etc.

At Division and Sub-Division Level

Similarly, at a Division level, DWSS will institute a formal structure in form of a Revenue Wing headed by a Revenue Officer (RO) who shall be responsible for revenue management activities for its division. RO shall be supported by 1 (one) Revenue Assistant. Each Revenue Officer shall be responsible for:

* Day to day monitoring of billing and collection activities at division level including all its sub-division offices
* Reporting of billing and collection information into the Computerized Centralized Billing and Collection System
* Implementation of strategic campaigns initiated by Head Office at division level

Additionally for every sub-division there willbe 1 (one) Bill Clerk and 1 (one) Computer Operator. Each Revenue Wing Sub-Division offices willbe responsible for strict revenue monitoring and reporting to the RO at Division level. In addition, the Revenue Wing Sub-Division offices shall be instrumental in implementing and driving strategic campaigns pertaining to revenue collection, billing and monitoring.

The concerned RO will engage Revenue Collectors to distribute bills, collect revenue and inspect house hold connections regularly to detect various violations.Every RO shall have the flexibility to engage pump operators or any other field worker of DWSS or retired government official (e,g. teachers, ex-serviceman or other personnel who have retired from State or Central Government service)as Revenue Collectors on incentive basis in addition to their routine work.The Revenue Collectorswill be paid an incentive @ 4% of amount collected. In addition, the Revenue Collectors shall be responsible to inspect the connections regularly and detect various violations and shall be incentivized for detecting such irregularities in terms of illegal connections, installation of booster pumps etc..

* 1. **Standardization of Billing and Collection Process across the state**

It has been observed that in an absence of Standard Operating Procedure (SOP) for Billing and Collection, procedure varies across Sub Divisions adding to the low billing and collection efficiencies and high debtor days. To address the same, DWSS shall develop a detailed Standard Operating Procedure (SOP) for Billing and Collection whichshall include detailed responsibilities of officers under Revenue Wing at all levels (head office, division office and sub-division office).

The SOP shall also include a detailed flow-chart describing the process of billing and collection in the presence of computerized centralized billing and collection system. The SOP shall also define yearly targets for divisional / SD officers for achieving billing efficiency and collection efficiencies. To cut down on the cost of collection, SOP may undertake billing on average monthly basis for metered connections (which may reconciliation on yearly / half-yearly basis).

SOP may also contain an incentive program for the consumers to provide them with incentives for advance payments (more than 6 months advance) including credit points and online payments.

1. **Encouraging transfer of schemes to GPWSCs**

The Punjab State Rural Water Supply and Sanitation Policy (2014) 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.

DWSS shall encourage transfer to schemes to GPWSCs. DWSS shall provide technical assistance to GPs / GPWSCs for better operation and maintenance and undertake all major repairs of schemes operated by GPWSCs.

1. **Strengthened Governance Mechanisms**

In addition to above measures, DWSS shall provide for strengthened governance and accountability, legal support and training to the revenue management functions particularly the Revenue Wing. These measures include:

* **Enhanced governance mechanisms:** DWSS shall maintain double accounting accrual based accounting. DWSS shall prepare detailed asset register and prepare balance sheet of each scheme operated and maintained by DWSS. DWSS shall undertake periodic re-valuation of assets
* **Legal and enforcement support for field level:**DWSS shall undertake state wide empanelment of legal service providers which will facilitate the division / sub-division offices in matters of illegal connections, court cases in matters related to revenue management.
* **Training for field level:**DWSS through Revenue Wing shall provide training on customer relationship management, community engagement, and complaint redressalto all personnel related to revenue management functions
* **IEC for consumers:**DWSS through Revenue Wing shall undertake IEC for consumers on aspects related to benefits of individual household connection, timely payment and volumetric tariffs.
* **ShikayatNivaran Kendra (Toll Free Help Line):** DWSS shall make earnest efforts to provide regular water quality supply to the rural habitations of Punjab and encourage all consumers to raise their grievances through a Toll free help line (Phone number : 1800-180-2468) to 'ShikayatNivaran Kendra'. This number shall be given due publicity and shall be painted every year in the first week of November at 4 prominent places in each village.

1. **Dispute Redressal Mechanism**

The consumer who is aggrieved on account of poor service, levy of penalty and fines may approach appellate authorities to redress his / her grievances. The following appellate authorities shall be constituted to redress the grievance of the consumer.

**First Appellate Authority:** The first appellate authority shall comprise of the following officers

|  |  |
| --- | --- |
| Executive Engineer in charge | Chairman |
| Sub Divisional Engineer in charge | Member Secretary |
| Divisional accountant | Member |

* All disputes shall addressed to 1st appellate authority shall dispose off the application of the consumer in transparent and time bound manner. They shall pass appropriate seeking order on the application of the consumer and convey it to the consumer.
* The consumer shall have the liberty to approach the second appellate authority, if he or she is aggrieved with decision of 1st appellate authority within 45 days of the decision.
* The 1st appellate authority will hold it's meeting at least once a month to dispose of pending complaints.

**Second Appellate Authority:** The second appellate authority shall comprise of the following officers

|  |  |
| --- | --- |
| Superintending Engineer in charge | Chairman |
| Executive Engineer from other division | Member Secretary |
| Circle / Budget superintendent | Member |

* The consumers shall have the liberty to approach the 2nd appellate authority, if he or she is aggrieved with decision of 1st appellate authority within 45 days of the decision.

**Final Appellate Authority:**Final Appellate Authority shall comprise the following officers:

|  |  |
| --- | --- |
| Chief Engineer in charge | Chairman |
| Controller Finance and Accounts | Member Secretary |
| Executive Engineer (Works) | Member |

* The final appellate authority shall have full and final jurisdiction on all the disputes referred to it by consumers.

1. Source: IMIS database format C30 and format C36 accessed on 19th November 2018 [↑](#footnote-ref-2)