



Water tariffs: A challenging issue for WASEP implementation

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THE LACK OF proper operation and maintenance (O&M) has long been acknowledged as being a major contributing factor to non-functioning of water supply schemes in the developing countries. A common strategy of most agencies that operate in rural areas has been to delegate the responsibility of O&M to the user communities. However, it is common to observe that these communities are often unable to meet the above expectations for reasons which may include, amongst others, the absence and understanding of well defined management systems, dissatisfaction with service levels, lack of motivation, general reticence, and social conflicts.

The surveys conducted by the Water, Sanitation, Hygiene and Health Studies Project of the Aga Khan Health Service in the northern areas and Chitral during 1993 – 96 have shown that nearly 50 percent of the rural water supply schemes were under different levels of functioning, with many in the complete non-functional state. One of the major reasons for the given condition is being the lack of proper O&M.

The Water and Sanitation Extension Programme (WASEP) of the Aga Khan Planning and Building Service for Pakistan is a comparatively recent addition to the agencies working in the rural water supply and sanitation sector in the northern Pakistan. The WASEP approach places significant importance to ensure the proper O&M of the schemes after construction. In this connection a two-pronged strategy is applied in the WASEP terms of partnership for the communities, including the establishment an O&M fund as a pre-requisite to scheme approval, and collection of water tariffs after completion to be supplemented to the aforementioned fund. After completion of the first batch of 15 WASEP schemes in 1998, a monitoring exercise was undertaken in 11 out of the 15 schemes in order to assess the operational conditions of these schemes and to examine the tariff collection situation. Through the mentioned exercise it was revealed that the tariff collection strategy was not being followed satisfactorily in most cases. To substantiate the above exercise it was decided that an in-depth study is carried out in 3 of the mentioned villages. Through this study it was aimed to gain a better understanding of the tariff situation and to assess the effectiveness and the shortcomings of the community based tariff strategies that were implemented by WASEP. This paper presents the findings of the mentioned study.

Presumed key hypothesis

To analyse and ascertain the tariff system breakdowns the following hypothesis was used as a probable cause – effect relationship:

- i. **Inappropriate tariff collection strategies:** Often the tariff collection procedures are inappropriate with respect to the specific conditions. Alternative strategies and procedures of tariff may be examined such as tariff through trade, barter instead of currency; collection in one or two installments in a year linked with the marketing of crops and/or livestock instead of fixed monthly collections; centralized collection verses door-to-door collection.
- ii. **Lack of users' confidence in the community based organizations:** There may be lack of users' confidence and trust with the community-based organizations and the workers/activists, who are responsible for implementing the tariff collection procedures and managing community funds at the local level.
- iii. **Lack of women's participation:** It is often very common for women to get excluded from the major decision making procedures and O&M activities. They are generally perceived as the passive partners, and considered to be unable to carry out managerial and technical activities.
- iv. **Free riding:** Often, free riding, even at a small scale, can result in the disruption of collective efforts. In the case of water supply, it is common not to pay, often the poverty argument is used for exclusion to pay (standard willingness and ability to pay dichotomy).
- v. **Disparities in the service level:** Through the provision of individual household connections WASEP has already made an effort to minimize the level of services between rich and poor. Some disparities may still exist in the service levels in terms of influential people obtaining more than one connection, and larger amount of water used in the case of large families.

Study methodology

The information gathering process methodology entailed (and was not limited to):

- i. Meetings held with the village Water and Sanitation Committees (WSCs) in order to review the existing strategies regarding tariff collection, and to identify issues and problems faced in this connection.
- ii. The tariff records from each study village were obtained and reviewed.
- iii. Where applicable, meetings were held with non-payer target groups to verify the tariff records and to obtain their reasons for non-payment.

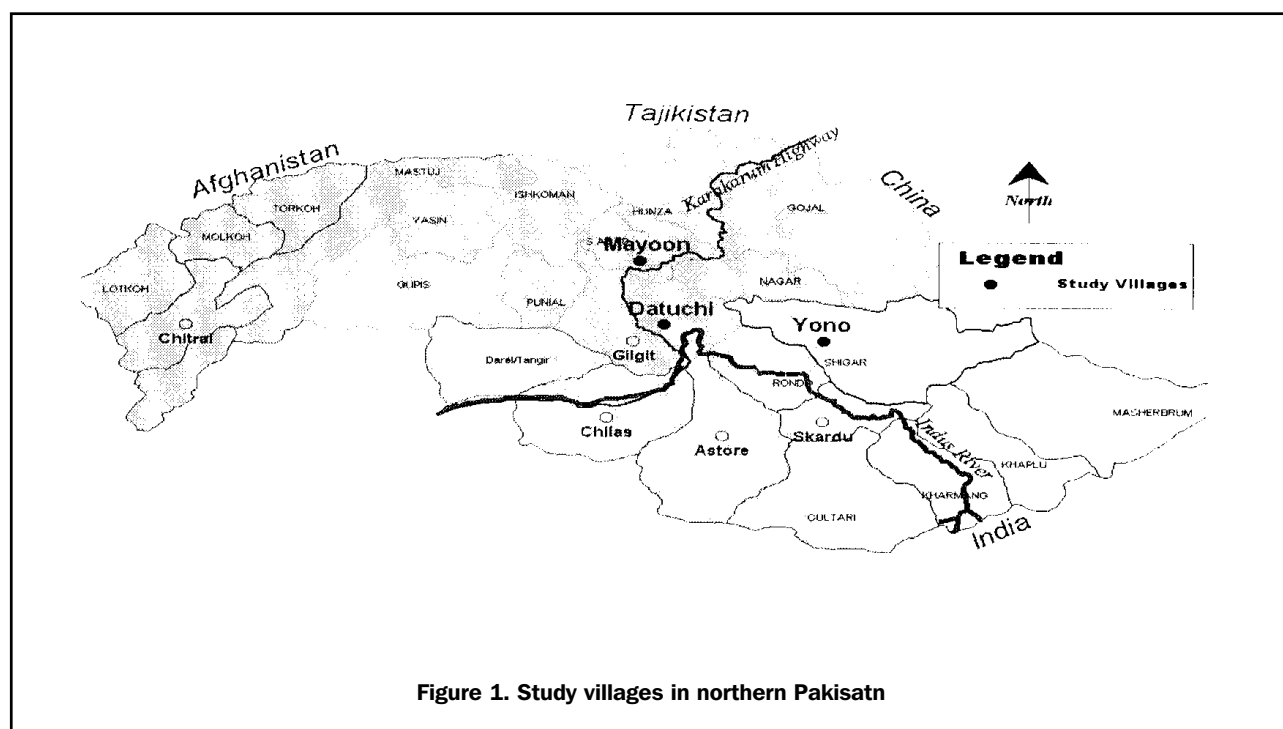


Figure 1. Study villages in northern Pakistan

- iv. Village general body meetings with men were held to present the findings of the study and to discuss the current situation regarding payment of tariffs. Their views for improvements were sought.
- v. Female general body meetings were held to assess their understanding about the tariff issue and to seek their opinion about the current situation. The possible role of women in the tariff collection activity was also explored.

The study villages

A brief introduction of the study villages and their strategies of tariff collection have been presented in Table 2.

WASEP recommended a monthly tariff of Rs. 10 per family for the scheme villages. For Gilgit and Baltistan regions where the tariffs were linked with repair and maintenance, this translated into an annual O&M cost of 2 % of the external investment cost of the water supply component (excluding cost of the community share i.e.

Table 2. Introduction of study villages and their strategies of tariff collection

| | Datuchi | Mayoon | Yono |
|-------------------------------|---|---|--|
| Number of Households | 120 | 90 | 58 |
| Population | 930 | 720 | 595 |
| Languages Spoken | Shina (100 %) | Shina/Brushiski (80/20) | Balti (100 %) |
| Major tribe | Yashkun | Shine | Mughul |
| Sources of income | - Agriculture - Local and outside jobs - Seasonal labouring | - Agriculture - Local and outside jobs - Seasonal labouring | - Agriculture - Minerals - Tourist guiding |
| Year of scheme construction | 1998 | 1998 | 1998 |
| Type of scheme | Gravity water supply & household latrines | Gravity water supply & household latrines | Gravity water supply & household latrines with water treatment plant |
| Tariff rate (Rs/family/month) | Rs. 5 | Rs. 5 | Rs. 10 |
| Tariff collection method | WSC (door to door) | WSC (door to door) | Operator (door to door) |

local labour and materials). Whereas in Chitral region where the tariffs were used to pay the salaries of the scheme operator and health and hygiene worker (WSI) it assumed wages of approximately 14 hours of un-skilled labour per week for the operator, and 10 hours per week for the WSI.

Results

Summary of tariff collection in 1999

The tariff rates set by the villagers in Datuchi and Mayoan was 50 percent lower than that recommended by WASEP as a minimum standard. The Water and Sanitation Committees (WSC) in these villages, which are the responsible body for scheme implementation and management at the village level, explained that an increase in the tariff rates was planned for the 2nd year of scheme operation, i.e. from January 2000. However, such a step was not undertaken until March 2000 when the study was being carried out. Similarly, in the same villages, the cash subsidy paid by WASEP for latrine construction was utilized for paying water tariffs of up to 6 months. The subsidy accounts for 15 to 20 percent of the total cost of the latrine, much of that is paid in shape of external materials. The remainder of the subsidy amount works out to between 15 to 20 % of the total grant (the sanitation subsidy policy is in contention with some donor agencies). It suggests that the actual tariff collection situation in the aforementioned villages could be worse if the subsidy factor was excluded.

The tariff data for the study villages has been presented as percentage of user families paid for different time periods over the year i.e., zero months, 1 – 5 months, 6 – 11 months, and 12 months (see Table 2). These figures suggest that in Yono where the tariff rate was higher and where it was collected on a monthly basis, only 19 percent of the users paid for the whole year. However, a sizable number of user families i.e. 66 paid their tariff for 6 to 11 months of the year. For Datuchi and Mayoan these figures work out to 44 percent and 86 percent, respectively. Figure 2 provides the aggregated overall percentage of tariff amounts collected in the study villages for the study year. The data suggest that the amount of tariff collected over the entire year equals to 62 %, 71 %, and 89 % for Datuchi, Yono, and Mayoan respectively.

Verification of study hypothesis

- i. **Inappropriate tariff collection strategies:** All three villages adopted the strategy of collection in cash and on a door-to-door basis. Alternative forms of collection such as through trade and barter was not encouraged in any of the villages. A specific duration for payment was not set, it was left up to the users' discretion to pay for as many months as possible. The payment of tariffs was not linked with the marketing of crops and livestock during the certain times of the year when the villagers are generally in a better position to pay. The door-to-door collection which was adopted in all villages proved to be difficult and time consuming, the collectors felt inappropriate to making repeated visits to the individual households.
- ii. **Lack of users' confidence in the community based organizations:** This was not a found to be a substantive factor contributing towards the unsatisfactory tariff recovery conditions in the study villages. The WSCs in all three villages were elected through a free and fare procedure. These WSCs generally seem to enjoy the confidence of the majority of the villagers to manage the technical and financial matters of the schemes. Some women in some of the villages seem not be aware of the usage of the O&M funds. Some thought these funds were being used for paying salaries to the village operator and the health and hygiene worker, which was not the case.
- iii. **Lack of women's participation:** In none of the study villages did women play any substantive role in the collection and management of water tariffs. It was however apparent that most women in the study villages had a reasonable understanding about the O&M requirements and need for a proper tariff policy. They were also willing to play an active role in this connection. On the contrary, the male members of the community in all three cases disagreed with any potential role that women could play in tariff collection. They suggested that this was impractical given the limitations of female mobility.

| Village | Categories of tariff payment over the year 1999 | | | |
|---------|---|--------------|---------------|-----------|
| | 0 months | 1 – 5 months | 6 – 11 months | 12 months |
| Datuchi | 18 % | 18 % | 20 % | 44 % |
| Mayoon | 3 % | 9 % | 2 % | 86 % |
| Yono | 9 % | 6 % | 66 % | 19 % |

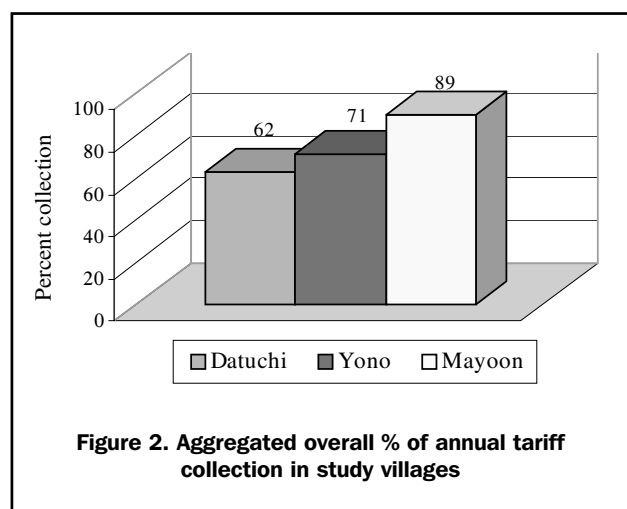


Figure 2. Aggregated overall % of annual tariff collection in study villages

- iv. **Free riding:** 'Free riding' was not noticed as an issue in any of the villages. There were however, some cases where some poor families were exempted from tariff payment for which the entire village community seemed to be in agreement. These families generally include those headed by widows and orphans. These families were also exempted from other communal obligations such as seasonal rehabilitation of irrigation channels, fees of community run schools and health centres, pasture activities etc.
- v. **Disparities in service level:** Through the provision of individual household connections WASEP has already made an effort to minimize disparities in the level of service between rich and poor. In one of the villages, i.e. Yono, some five families who are among the non-payers complained about not having reliable service in terms of continuous water supply. All of these households are situated on a higher location in the supply network where a satisfactory supply could only be ensured by throttling the downstream flow by means of a control valve. It was found that the system operator was not attentive to these requirements due to the remote location, and later due to the broken valve which was left unattended for a few months before WASEP staff intervened to improve the situation.

The conclusive findings

- i. **Apathy and lethargy on part of the WSCs:** Although not envisaged the common factor that has contributed to the unsatisfactory conditions with regard to tariff collection is the general apathy and lethargy from the WSCs in all three villages. In 2 of the 3, the entire responsibility of tariff collection tariff lied with the WSC, whereas in the third village, i.e. Yono, the WSC was expected to help the operator to make the door-to-door collection. In Datuchi, the selection of the WSC members was made on the basis of representation of different clans, and was agreed that each member would cover their respective clans. In Mayoan the distribution of collection zones did not follow any specific criteria – here the level of responsibility varied with the level of the volunteerism of the individual WSC members. In all three villages it was apparent from meetings with the village general body, and individuals that insufficient efforts were being made by the WSC members regarding tariff collection. Many users reported they were not approached for many months. In all three cases, the WSC members admitted to above finding and showed willingness to make renewed efforts in the future. Besides follow-up, one factor to be appreciated here is the perception of “why should collection of tariffs be undertaken when nothing is wrong”.
- ii. **Users' perspective of the tariffs:** According to WASEP strategy in the Gilgit and Baltistan regions, the salaries of the village operator and female health worker are being paid from the profit of the O&M funds. The monthly tariffs are meant to cater for needs of any major repairs and maintenance. Since the WASEP implemented schemes are relatively new, such a situation may arise in a few years. The users in these villages generally seem indifferent to such future needs and tend to consider the tariff collection as a mere condition of WASEP. A different O&M strategy has been introduced by WASEP in the Chitral region – here the tariffs are being linked to the salaries and the profit from the O&M account for future repairs and maintenance. It has been noticed that the tariff payment/collection rate in all four of the 1998 scheme villages in Chitral region i.e. Hingil, Siya Arkari, Madaklasht, and Snoghore has been quite near a 100 percent for the year 1999.

Recommendations

- i. **Follow-up of village activities:** According to the WASEP – Village terms of partnership, the sole responsibility of scheme management lies with the user community. WASEP staff is available to offer technical assistance only on request. It is assumed that the WSC, which is chosen by the community and trained by WASEP during implementation, will continue to play an active role in the village. This study suggests that some follow-up activities can substantially contribute to the better and timely performance of the WSCs, which can be done through periodic visits of the agency staff to the villages for at least the first couple of years after scheme completion. The recent visits to the study villages have proved to enhance peoples' interest in the tariff procedures. In Mayoan, the tariff rate was increased from Rs. 5 to Rs. 10 per family, and in Datuchi and Yono the WSCs undertook to initiate renewed efforts to improve collection of tariffs.
- ii. **Introduction of alternative strategies:** Having proved the strategy in Chitral as being more effective, it is recommended that tariff collection be linked to the payment of salaries elsewhere. Through this the users shall be able appreciate a definite and a visible purpose of the tariff collection activity. Other alternative strategies may also be applied according to the specific conditions. These may include different forms of collection such as through trade and barter. Similarly payment of tariffs can be linked with the marketing of crops and livestock. Furthermore, the door to door collection by the WSC members, which has proved to be difficult and time consuming in some cases, could be replaced with centralized collection procedures at the village level. The WSI, who is a member of the WSC, makes fortnightly visits to each family for collecting data on diarrheal diseases – the door-to-door collection activity may be better performed by the WSI.
- iii. **Encouragement of the women's participation:** The participation and involvement of women in the collection

and management of water tariffs could improve the general situation of tariff collection. Being the primary users and managers of the drinking water supply at the household level the womenfolk may be better sensitized about the tariff issue. It is also common for village women to have the possession of family income made from household agriculture and other food products such as fresh and dry fruit, vegetables, chicken, eggs etc. It may be more practical to expect the timely payment of tariffs from the womenfolk. In order to allow the women's participation in the management activities, awareness raising campaigns would need to be imparted for the village male members who generally seem not to appreciate the relative importance of the mentioned factor. The delegation of the responsibility of door-to-door collection to the WSI seems more practical and it could help to improve the overall situation with tariff recovery. Despite reservations of the male members towards the idea of collection females *per. se.* the WSI option was an acceptable exception primarily because she was undertaking house to house activities.

iv. **Training of village accountants:** It has been generally observed that the village accountants are not capable enough to manage the village accounts in a professional order. These accountants, who are members of the WSCs, need further training in accounts and book keeping. By enhancing their professional skills it would help to ensure establishing proper and transparent means of business at the village level, which may result in the satisfaction of the clients and their adherence to the tariff policies.

Conclusions

The following conclusion could be drawn from the above study:

i. The level of commitment of the volunteer workers in villages may decline over time. Periodic follow-up by

the external agency staff can help to motivate these workers and hence improve the effectiveness of communal activities such as tariff collection.

- ii. The villagers can better appreciate the need and importance of tariff collection activities if linked with visible objectives such as paying salaries of village workers. It is generally difficult to achieve adequate commitment if the objectives are seen as an "insurance" with a 2 – 3 year timeframe before an event.
- iii. "A single strategy for all conditions" may not be an effective policy. Alternative strategies and procedures appropriate to the specific socio-economical conditions of an area must be explored and implemented.
- iv. Women can play a vital role in the management of water tariffs at the village level particularly where health and hygiene education sessions are being undertaken. However this may not be universally acceptable without sensitization of the village male members.
- v. The training although foreseen by the executing agency as being adequate and appropriate, at the village level the caliber of individuals vary and hence re-training or continuous training is an important component which should be incorporated as a policy of the implementing agency for long term sustainability of WSCs.
- vi. The performance of the WSC members in a professional and a transparent manner leads to the users' trust in the financial systems and their improved participation.

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