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What long serving village maintenance workers have in common: findings from Nepal's Karnali zone

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This paper presents the findings of a small qualitative investigation conducted in 2013 interviewing Village Maintenance Workers (VMWs) in three Karnali districts of Mid West Region of Nepal. The predominant water supply technology is Gravity Fed Water Systems (GFWS) often bringing water from spring sources many kilometres from the village and therefore requiring formal management for sustained operation and maintenance. The SNV Nepal Functionality of Rural Water Supply (FRWS) programme has identified that of the GFWS in these districts, only around 23% are functioning fully with between 10 and 70 % having a designated VMW, depending on the district, despite the presumption that the presence of a trained and motivated VMW is a pre-requisite to ensuring functionality. The investigation aimed to identify common factors amongst long and short-serving VMWs in order to develop strategies to encourage their continued service on rural water supplies (RWS).

RWS services in Nepal's hill and mountain regions

In the hill and mountainous districts of Nepal, the predominant source of drinking water is gravity fed water supplies (GFWS), often linking communities to sources many kilometres away. Since the late 1990s the accepted service delivery model is for GFWS to be constructed by government or donors, often with some element of community contribution, either as cash or in kind. The scheme is then formally handed over to the community, ostensibly for operation and maintenance, but in reality few implementing agencies provide consistent or regular follow up support. Despite this lack of support, rural water supply (RWS) functionality problems are typically said to be due to 'lack of ownership' by communities and the expectation is that Water Supply User Committees (WSUCs) and their appointed Village Maintenance Workers (VMWs) will maintain service levels till the end of the scheme's design life.

As a result, the District Water Supply and Sanitation Office (DWSSO) has become the default point of support for user committees when help is needed. Although the DWSSO is the most decentralised body of the Ministry of Urban Development, responsible for water supply throughout the country, and in theory have a formal mandate to provide support to WSUCs, at present they are not allocated resources, human or financial, to provide post construction support to existing schemes, regardless of who implemented them.

The role of WSUCs and VMWs

The Government of Nepal's RWS project cycle requires implementers to establish construction committees to represent communities during the design and construction phase. Towards the end of the construction phase, this committee is to be re-formed to become the WSUC. Individuals are proposed or volunteer to take up the role of VMW. The implementing agency is expected to facilitate this selection process and provide appropriate training so that WSUCs and VMWs are able to undertake routine operation and maintenance (O&M) tasks for the scheme.

The implementing agency is expected to explain the need for tariff collection, support the tariff setting process and advise on tariff collection methods to finance O&M activities including salaries for VMWs and WSUC members as the community decides.

The reality or RWS operation and maintenance

The reality is somewhat different. The extent of community participation varies by implementer, as does the extent and quality of support to WSUCs and VMWs. As noted above, support beyond scheme handover is unusual and often dependant on personal relationships, rather than compliance with policies and procedures.

Where tariffs are not regularly collected, or where the WSUC's or community decide not to pay VMWs, then; unsurprisingly; VMWs often abandon their roles for more remunerative opportunities.

A 2012 review of active VMWs in Kalikot district identified half a dozen VMWs who had been working for more than ten years, hereafter called 'long serving' VMWs, and those working less than 10 years referred to as 'short serving'. Curious about the factors which differentiated these VMWs from their colleagues who remained only 2 or 3 years in the role, SNV Nepal's WASH team interviewed a selection of VMWs from our three Functionality of Rural Water Supply (FRWS) programme districts in the Mid West region.

Research methodology

In SNV's three FRWS programme districts there are nearly 1500 GFS. Data collected through SNV supported WASH mapping found that on average 45% of schemes reported having a VMW, with the details for Dailekh and Kalikot districts shown in Table 1. Even with the least qualified and competent VMW one could argue that these schemes have a comparative advantage over the remaining 8251 schemes with no VMW at all.

District	Pop served (HHs)	No. schemes	>20yrs old	>80% taps functioning	With VMW	water 12 months/ yr	With O&M fund
Dailekh	261,770 (48,919)	739	35 (5%)	200 (27%)	510 (69%)	181 (25%)	267 (36%)
Kalikot	36,700 (7,488)	189	0 (0%)	41 (22%)	19 (10%)	24 (13%)	11 (6%)

Interviewing every active VMW was not logistically possible, and thus a purposive selection of VMWs was made, based on the length of service and to minimise inconvenience of travel to the district headquarters for interview. As a result no female or ex-VMS were included in the final selection as shown in Table 2. Selection did not take into account the implementing agency, but the interviews found that over 80% were provided by the DWSSO. Clearly this sample size cannot be said to be statistically representative of the entire theoretical VMW population of over 600, but provided some interesting insights nonetheless.

District	No. of VMWs	>10 years	> 5 years	≤5 years
Dailekh	6	1	3	2
Kalikot	6	2	2	2
Jumla	6	4	1	1
Total sample	n=18	n=7	n=11	

A structured questionnaire was developed to capture information about the process by which the VMW was selected and any training provided, what services they provide, how they are remunerated, whether and

¹ 55% of 1500 schemes

how they supplement their incomes with other activities, views on customer satisfaction and quality of services, relations with other relevant agencies and their thoughts on motivations and disincentives to remaining in the role.

Interviews were conducted in Nepali by SNV WASH advisors and transcribed into English for qualitative analysis. Initial interviews and transcriptions were conducted by both WASH advisors, to enable learning and sharing and to develop a consistent approach to vocabulary and terminology.

The responses from different VMWs to the various questions were compiled in a spreadsheet. Coding and theme identification was done manually, comparing answers from the long and short serving VMWs.

Findings from the VMW interviews

Basis for selection and acceptance of the role

Six key reasons for selection were identified by the eighteen respondents. A third of the VMWs were selected based on their previous experience, whilst a third felt it was a community decision. These two most frequently mentioned reasons for selection were mentioned equally by long and short serving VMWs, but represented 43% of long serving VMWs as compared to 27% of short serving VMWs. Other less cited reasons were the proximity of the VMW's house to critical RWS infrastructure, existing relationship with the WSUC chairperson, selection by the DWSSO or because they already held a leading social position. DWSSO appointment, existing community roles and acquaintance with the WSUC were not cited by any of the long serving VMWs.

Eight out of eighteen VMWs said that they accepted the nomination for the opportunity to serve the community, equally split between long and short-serving VMWs, but representing 57% of long-serving VMWs and only 36% of short serving VMWs. A third of both long and short serving VMWs said that they needed the work. Of the less cited reasons for accepting the role, two said they already had relevant skills, one wanted to learn new skills, one did it for the social prestige and one did it because there was an opportunity to bring the water supply to his house by working on the scheme. All but one of these less cited reasons for accepting were only mentioned by short serving VMWs.

Training received

Almost a third of both long and short serving VMWs said they received only informal initial training. A third of newer VMWs were more likely to have received up to a week of training whilst a third of long serving VMWs could not recall how many days of initial training they had attended. Two short serving VMWs had received up to two weeks of initial training and one had attended a month of training. The two remaining long serving VMWs had attended up to three weeks of training.

Over one third of long serving VMWs said that they had received no follow up training and the same proportion said they had follow up training but could not recall how long it was. The remaining long serving VMW said he received a week of training. This compares to over 80% of short serving VMWs who said they had no follow up training, one who had 5 days of training and one who had received on the job training.

Clearly the duration of service and incidence of training could be both cause and effect, i.e. those working for longer are likely to get training opportunities, whilst those with less training may choose to leave earlier.

Identifying new work opportunities and competition

Three of the short serving VMWs got their roles because the previous scheme VMW had left. The majority of VMWs had held their role since scheme handover by the implementing agency. Main contact points with the scheme management were the WSUC chair or other committee members.

VMWs who had not been selected at scheme handover had been offered the role because the previous VMW was ineffective or inactive, or had left.

Four out of five VMWs who reported supporting other water supplies privately worked for the local school. With such low numbers no correlation between finding private work as a way to supplement income and length of service could be identified. However, only one of these four expected to be paid cash for such services, the rest accepted meals and drinks whilst doing the work.

Schemes supported, services offered

As one might expect due to geographical remoteness, more than half of all VMWs served only one scheme, though they sometimes assisted others. Long serving VMWs were equally likely to either work on or provide support to one, two, 2-3 or 4-5 schemes. No VMWs employed for less than ten years reported ever working on more than two schemes.

The analysis identified seven types of technical problems they are most commonly asked to fix. Most frequently mentioned was replacing consumables or undertaking minor repairs. The second most common problem reported is that there is no water in the tap and the third is to replace damaged pipes. These three problems account for 80% of reported technical problems.

Water flow management to provide fair distribution is the most commonly reported managerial problem mentioned by half of all VMWs. Tariff collection was the next most common management problem, mentioned by a third of VMWs. Other less cited managerial issues were non-functioning WSUCs, demand exceeding technical capacity of the system, and equitable tariff setting.

The majority of VMWs reported no social problems. Of the social problems that VMWs face, poverty was mentioned by nearly a third, affecting people's ability to access services or to pay their tariff. Caste discrimination, particularly against Dalit households, was mentioned by three of the eighteen VMWs. Other issues raised included unequal flow distribution, willful damage to pipes, land rights along pipe routes and high migration levels affecting tariff collection.

RWS workload management and support

Long serving VMWs felt there was less fluctuation in O&M workload around the year compared to the short serving VMWs. Some long serving VMWs mentioned planning for the wet and dry season, and this may explain their ability to spread their activities more evenly. Short serving VMWs were much more likely to report periods without work.

Two thirds of VMWs said that they had trained, or were currently training someone to help them. Three of the short termers were explicit about their own lack of training and therefore their inability to train anyone else, whilst two of the long termers said they had never trained anyone. All but one of the VMWs said they could find someone to help them.

Relationships with other WASH agencies

Two VMWs claimed to have no relationships with any other agencies, but the majority had contact with the DWSSO. Long serving VMWs were more likely to state their DWSSO contact was regular, whilst short termers reported more irregular contact. However, when asked in more detail about their relations with the DWSSO, only 5 mentioned either the District Engineer or other DWSSO staff as a contact point, and in all cases the DWSSO initiated the contact and set the rates of payment.

The second most contacted group were local and national NGOs, typically RWS implementers. However some VMWs stated that the implementing agency of their scheme was no longer present in their district.

The only interviewee who mentioned relations with FEDWASUN, the Federation of Drinking Water and Sanitation Users, Nepal was a VMW who had been working for 14 years. Considering that all WSUCs are supposed to be registered with their district FEDWASUN and it is FEDWASUN's role to support WSUCs, this was surprising and disappointing.

No VMW had any formal arrangement with any agency, whether verbal or written. Only five VMWs reported that the DWSS recommends them to other potential clients. With such low incidence figures, differentiation between the knowledge and activities of long and short serving VMWs was not possible. Only two VMWs identified that maintaining relations with the DWSSO might be beneficial, and less than half the interviewees felt the DWSSO was doing a good job.

Income and livelihood strategies

All long serving VMWs were remunerated for their services, compared to two thirds of those who had worked for less than 10 years (Figure 1). Of these, three quarters were paid in cash, the remaining in grains. Cash payment was slightly more common for the long term VMWs. Similarly long serving VMWs were more likely to be paid monthly, rather than at longer intervals.

Converting foodstuff payments into rough equivalent cash values, those accepting foodstuffs were paid significantly less than those receiving cash, which may reflect the relative poverty or lower reliance on cash in their community. Monthly payments range from less than NRS¹ 1000 to NRS 12,000. Long serving VMWs were likely to have salaries above NRS 1000/month, with the majority getting around NRS 5000/month, whilst two thirds of the short serving VMWs were paid less than NRS 1000/month.

Four out of five VMWs received their payment as per the agreed frequency and value, though the rate of timely payment was slightly lower amongst the longer serving VMWs which may reflect longer and stronger relations with their community. Four of the interviewed VMWs stated that they had renegotiated the salary with the community. For two of the VMWs this resulted in an almost sevenfold increase, taking

their salary to 8500 and 12,000 NRS respectively, and they are among the top three paid VMWs of the sample, but only one is a long serving VMW.

One of the short serving Dailekh VMWs quit after four months of irregular salary payment. The WSUC and community unsuccessfully tried to operate the scheme themselves, and then requested him to return, which he accepted without pay, inferring that prestige or social recognition was sufficient motivation.

A third of interviewees responded that their VMW salary contributed less than a quarter of the total income. The proportion who said it amounted to about half their salary was higher amongst long serving VMWs. When asked what other livelihood activities supplemented their incomes, seven out of ten reported agricultural activities, including vegetable farming and keeping orchards.

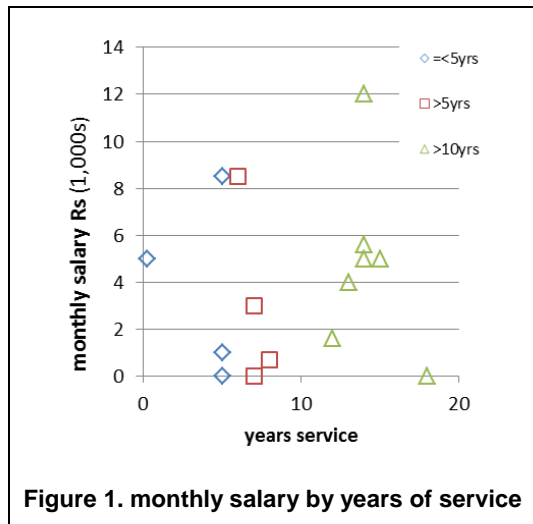


Figure 1. monthly salary by years of service

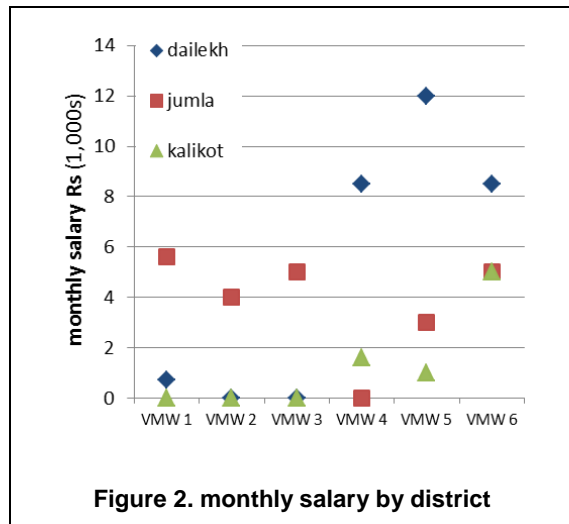


Figure 2. monthly salary by district

Livestock for meat and dairy products, beekeeping and carpentry were mentioned by one VMW each respectively. Of the six VMWs who said that they relied wholly on other income activities, four were from Dailekh, and one each from Kalikot and Jumla. Conversely, of the three VMWs who said they relied entirely on their VMW salary, two were from Kalikot and one from Dailekh. Though the sample is small and no real statistical conclusions can be drawn, it suggests there is something 'culturally different' between the districts in the way VMWs are engaged and valued by their communities (Figure 2).

Motivations and disincentives to remaining a VMW

Eleven themes arose when asked to identify motivations for remaining as a VMW. Eight of the eighteen VMWs stated that serving the community was their main motivation, with the same number of long and short-serving VMWs mentioning it. The next most cited reason was to have respect from the water users, noted by six VMWs; or establishing good relations with the WSUC, mentioned by four VMWs. Only four VMWs mentioned salary or income as a motivation, and two mentioned training opportunities.

When asked what would be a factor that would convince them to give up being a VMW, a wide range of possible causes was mentioned. Seven of the eighteen VMWs said that nothing would cause them to give up, almost a third of long-serving VMWs and a fifth of short-serving VMWs. The next most commonly cited reason was disrespect from users mentioned by five VMWs. The remaining long-serving VMW mentioned old age and ill health as a possible reason for him to stop working.

When asked to consider reasons why other VMWs may remain in their roles a wider range of responses were mentioned. Respect from users continued to be a significant motivator, but was only stated by short serving VMWs. Similarly whilst reliable salary was also noted by five VMWs, only one was a long serving VMW. Training was also mentioned by five VMWs, both long and short serving VMWs, and respect from WSUCs by three respondents.

Thoughts on future VMW support

When asked what phase of water supply schemes needed further attention and support, two thirds of VMWs stated the post construction phase, a third mentioned the design phase, and only two the construction phase. The focus for the majority of long serving VMWs was the post construction phase whilst short serving respondents had a greater spread of responses.

Respondents were asked if a VMW accreditation scheme would be useful. This had already been mentioned by two VMWs when asked what would encourage them to remain working as VMWs. Almost half agreed it would be a good idea, and a third thought it was a very good idea.

Similarly formal recognition of training and provision of certificates had already been mentioned as a motivation factor, and the suggestion was considered by half of the VMWs to be a good idea, whilst four considered it a very good idea. Eleven VMWs thought training certification should be managed by the DWSSO, three suggested an alternative government agency whilst one said the DWSSO should not run it.

When asked what support VMWs would expect the DWSSO to focus their support on, there were two main responses. Seven VMWs said that the DWSSO should be responsible for major maintenance, and five VMWs said they should support emergency works, such as damage by landslides.

A similar question about the support that FEDWASUN should provide produced less clear results, with few VMWs showing a clear understanding of FEDWASUN's mandate to support WSUCs. This was consistent with the earlier finding that only one VMW said they knew anything about the organisation

Thirteen of the eighteen VMWs agreed that a system where communities or individuals could recommend a VMW to other people looking for services would be a good idea. Thirteen VMWs thought this should be managed by the DWSSO, but one clearly said it should not be the DWSSO. Others suggested an alternative government agency or had no idea.

When asked what benefits forming a VMW network or association could bring, all but one VMW were positive, with eight stating that it could be used to share experiences and knowledge, and four noting that they could support each other.

Conclusion

Community respect and providing a social service came out strongly as motivating factors for both short and long serving VMWs, though most of the long-serving VMWs seemed to also have salaries or livelihood strategies; typically in agriculture; which gave them this luxury. Shorter serving VMWs were more likely to mention that the salary was inadequate to live on.

VMWs value training and recognition of their skills and experience. Efforts to improve training opportunities may provide sufficient motivation to continue, but may also make them more able to find other jobs. The sampled VMWs

The anecdotal problem of 'lack of community ownership' was also mentioned by VMWs, and applied not just to communities, but to WSUCs, DWSS and other WASH stakeholders. There seems to be a general vacuum in understanding about roles and responsibilities for RWS and for the responsible bodies to provide the necessary clarity and support. The almost non-existent knowledge about FEDWASUN and the role of the federation is a serious issue.

Way forward

The purpose of the investigation was to investigate what livelihood strategies long-serving VMWs employed which allowed them to remain in their roles. In actuality no clear patterns were found and there were some anomalies amongst this small sample which suggest that motivations for remaining a VMW vary quite considerably. We therefore intend to develop these findings into cases to provide ideas and incentives for other VMWs, drawing from the range of strategies that were uncovered.

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Note/s

1. c. March 2014, USD1 ≈ Nepali Rupees 100

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