Project Year 1 Narrative Report

Chimanimani Wash for Sustainable Development

Annual Report October 2017 to September 2018

Tabanchu Primary school toilet at roof level

Project Year 1 Narrative Report

1.0 Executive Summary

Chimanimani WASH for Sustainable Development seeks to improve access to safe water and sanitation facilities and improve hygiene practices at Tabanchu and Nyamusundu primary schools, as well as providing green energy to Nyamusundu primary school. The project directly targets 824 school children (401 boys and 423 girls), 24 teachers, and 270 surrounding households in Wards 1 and 17 of the Chimanimani district in eastern Zimbabwe. Additionally, it is anticipated that 1,750 households will benefit indirectly through the replication and diffusion of good sanitation and hygiene practices.

The construction of water and sanitation infrastructure is now at an advanced stage. The solar-powered piped water schemes are at least two-thirds complete and are anticipated to be fully operational by December 2018. Flush toilets with menstrual hygiene and disability facilities are under construction and represent a significant improvement on the standards normally found in the district. Currently, they are at roofing level and at superstructure (wall construction) level at Tabanchu and Nyamusundu primary schools respectively, with both expected to be operational by January 2019.

Designs and planning for providing green energy to Nyamusundu have been completed and approved by district authorities. Following a comprehensive study into the potential for hydro-electric power generation, it was decided that a solar energy system was the most cost-effective. The installation of this system will begin in November 2018 and is anticipated to be complete by January 2019.

Extensive hygiene education and promotion activities have been conducted through multiple modalities, focusing on personal and environmental hygiene. Following the cholera outbreak in September, which resulted in 54 deaths and 9,009 suspected cases, these activities have become particularly pertinent. In response, the project intensified awareness raising and training on cholera's causes, prevention and control. Thankfully, no cholera cases had been recorded in the project area at the time of writing.

Overwhelming stakeholder support has been evident throughout the project, demonstrated by the active participation of community members and government bodies. Government bodies have allocated staff for technical support, provided a lorry for transporting materials, and rehabilitated a road to Nyamusundu primary school to enable vehicle access. Mobilised by councillors, traditional leaders and water management committees, community members have made vital contributions to project implementation. As well as providing locally available materials they have trenched approximately 6.5km of pipeline in harsh terrain.

2.0 Aims and Objectives

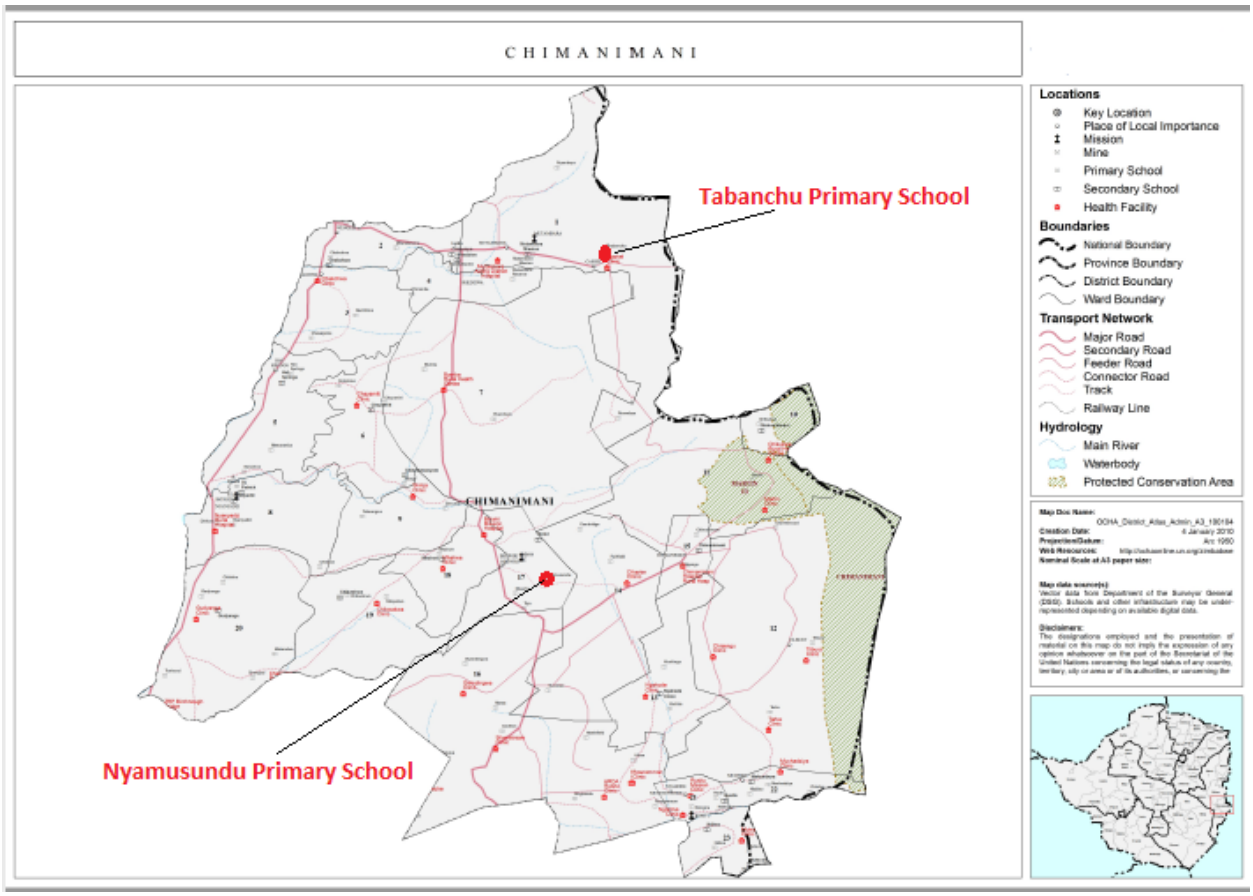
Aim

To contribute to the achievement of Sustainable Development Goals (SDGs) 6 – Clean Water and Sanitation and SDG 7 – Affordable and Clean energy

Objectives

i. To improve access to water for multiple uses for targeted schools and community in Chimanimani;
ii. To improve access to sanitation facilities for targeted schools;
iii. To improve knowledge and behaviours on good hygiene practices;
iv. To improve access to green energy at target school.

Figure 1: Project Area



Map adopted from OCHA

3.0 Progress towards Objectives and on Activities

3.1 Project Launch Meetings

CAFOD and its implementing partner, Caritas Mutare, held a project launch meeting in November 2017. This aimed to clarify expectations and deliverables, ensure compliance with donor requirements and delineate roles and responsibilities. Key project management tools and procedures were reviewed including: activity plans, budgets, reporting processes, procurement plans, risk management, and monitoring and evaluation frameworks. Additionally, discussions were held to reaffirm the existence and application of CAFOD's partnership policy, code of behaviour, safeguarding policy and complaints handling policy. The meeting was highly beneficial in clarifying objectives, working approaches and arrangements and reinforced enthusiasm for the initiative amongst project staff.

District-level Launch meetings

In December 2017, project launch meetings were held with council and government departments in Chimanimani district. The meetings were aimed at unpacking the project objectives, introducing the donors and drafting a plan for implementation. The meetings were also used to clarify project scope, as well as defining and agreeing roles and responsibilities. The stakeholders welcomed the project and expressed hope that the project would one day be extended to cover other needy wards in the district.

Three departments were identified as key stakeholders in the project; the District Development Fund (DDF), Department of Public Works (DPW) and Chimanimani Rural District Council (CRDC). Each department designated staff members to work on the project and report to the District Water and Sanitation Sub-Committee (DWSSC) during monthly coordination meetings.

Table 1: Stakeholder roles

Name of body	General role	Project specific role
DDF	Construction and maintenance of rural road network and rural water infrastructure (small dams, boreholes, deep wells)	Approve designs, supervise construction works, monitor progress and certification of piped water schemes

DPW	Construction and maintenance of public buildings/infrastructure	Flush toilet plans drawing in consultation with the schools, inspection of the toilets and certification
CRDC	Local authority responsible for social service provision	Oversee the project, inspects and certifies the works. CRDC committed to assist the communities with transport to ferry locally available materials such as sand and bricks to construction sites

The DWSSC resolved that CRDC would be the custodian for all project infrastructure because the two primary schools are under their jurisdiction. The council will ensure continuous functionality and sustainability.

Ward-level launch meetings

In January 2018, ward-level launch meetings were conducted in both primary schools. These aimed to improve understanding of the project's aim and objectives, scope and anticipated benefits, as well as to share roles and responsibilities amongst the different stakeholders. The meetings were well attended. In addition to key district-level stakeholders, participants included School Development Committees, School Administrators, School Health Coordinators, Ward Councillors, Environmental Health Technicians (EHTs), Village Heath Workers (VHWs) and Village Heads. Women and children were particularly well-represented at the meetings; 116 women, 50 men and approximately 780 children attended.

The ward-level stakeholders made commitments to provide labour for digging foundations, trenching and backfilling pipelines for the piped water scheme, and supplying bricks, sand and other locally available materials. During the meetings, the community agreed on working days and hours that where sensitive to gender needs of both men and women. Each village was allocated a portion to trench and backfill along the piped water scheme.

Feedback and reporting systems were agreed upon and mobile phone numbers exchanged.

Gender, disability and child protection issues were discussed during community launch meetings. It was clarified that contractors were prohibited from having direct

contact with contractors and children were not permitted to participate in project activities such as providing labour for trenching.

Young people who attended the meeting at Tabanchu presented a request to establish a gardening project alongside the piped water scheme as a source livelihood. This request was noted and will be considered as part of future projects.

3.2 Baseline Survey

In February 2018 CAFOD and Caritas Mutare conducted a baseline survey to establish the current situation regarding health and hygiene and access to clean energy. The baseline was designed to enable and enhance project planning, monitoring and evaluation.

The baseline survey used a combination of household surveys (targeting 30 households in each ward), key informant interviews and focus group discussions to get a clear picture of the water, sanitation and energy conditions in the target community and schools. In addition, the baseline also sought to validate some of the assumptions on which the interventions of this project are based.

Multi-stakeholder participation during the baseline surveys

Key findings from the baseline survey are as follows:

Water:

- 44% of the households get their drinking water from high risk unprotected sources such as the river, springs and unprotected wells;
- 48% of the households in Ward 17 access their water from unprotected wells;
- 35% of households in Ward 1 obtain domestic water from rivers;
- Only 24% of respondents reported sometimes treating their water.
- Schools share boreholes with surrounding villages. The boreholes break down frequently and take more than a week to be repaired.

Sanitation:

- Sanitation coverage is relatively high with 85% of the households having functional toilets in ward 17 having 100% coverage;
- Most of the toilets are pit latrines which do not meet the expected government health standards as villagers lack resources to construct the Blair toilets;
- Only 32% of household toilets have handwashing facilities installed.
- However, the sanitation coverage in schools is low; there is an average ratio of 29 users per squathole for males and 30 users per squathole for females, well below Sphere minimum standards.
- Schools do not have facilities for disabled access or menstrual hygiene provision.

Hygiene:

- Over 95% of the households practice handwashing before eating;
- Worryingly only 33% practice handwashing after defecation or urination.
- Tabanchu primary school has only a single handwashing facility while Nyamusundu primary school has none.

Recommendations from the findings of the baseline survey informed the packaging of the health and hygiene training material with special focus on less costly water treatment methods, household cleanliness and fundraising for toilet construction in schools.

3.3 Improved access to water for multiple uses.

Design of piped water schemes

A consultant was engaged to carry out a technical assessment to design, provide technical drawings, a bill of quantities and cost estimates for establishing solar piped water schemes. Key design considerations included:

- *Value for money*: maximising access to clean water at the lowest cost;

- *Sustainability*: low to no maintenance systems and secure, tamper proof components and green energy;
- *Extension*: enabling the expansion of the systems to other villages in the future;
- *Accessibility for all*: ensuring siting and height of taps enable use by children and people with living disability.

The designs were reviewed with beneficiaries and key stakeholders for approval. School authorities and women's groups determined the locations for the water points at school and in the community respectively.

Installation of piped water scheme

The installation of piped water scheme took a partnership approach considering the relative strengths, skills and capacities of the councils, communities and the Caritas Mutare to create synergies. CAFOD procured all materials centrally to maximise economies of scale. Caritas Mutare is coordinating the mobilization of the community and project implementation. The council overseeing the project and will inspect and certify the works. Communities provided locally available material and trenched a total of about 6.5km of pipeline. Installation of piped water schemes is now at least two-thirds complete.

Community members carrying pipes to a water source

Community members installing piping at Tabanchu

Selection and training of water point committees

Two water management committees were set up and trained on community-based management, gender and water point hygiene. Tabanchu water point committee (5 men, 3 women) and Nyamusundu water point committee (6 men, 2 women) were trained in the operation and maintenance of piped water schemes. Both committees were selected before installing the solar piped water schemes so that they could be trained by contractors during construction. The training included demonstrations in

dismantling and re-mounting of the water systems, a task which will be taken over by the community once the project ends and warranties lapse. These committees are also playing an important role in mobilising community members.

3.5 Improved access to sanitation.

District stakeholders agreed that construction of pit latrines was not the best strategy in these schools because the project is providing running water. Rural schools must periodically work on building new pit latrines after they fill up. However, the project's flush toilet system avoids this, and as such costs will be limited to those incurred for replacing worn out parts which are anticipated to be less costly. The opportunity to improve sanitation standards by constructing flush toilets at rural schools was embraced. Thereafter, the Minister of Education announced a ban on the construction of Blair toilets in rural schools as a move to modernise educational facilities around Zimbabwe[1]. However, this was subsequently clarified as not constituting a total ban but a new strategy encouraging the construction of flush latrines.

Design of flush toilets

The project is constructing a 10-squathole block of flush toilets at each of the two schools. The design of the flush toilets has 16 pans (and additionally a urinary for boys) for a total of 824 children. Each school has 2 pans for teachers. The toilet plans were agreed upon with the school authorities, DPW, Ministry of Health and Ministry of Education district officials, and CRDC. The design sets a new standard in the district including disability modifications and menstrual hygiene facilities as well as enough handwashing facilities. The flush toilets are the first for rural schools in the district and therefore stakeholder consultation and approvals took more time than expected. Reports in Zimbabwe show high rates of girl absenteeism during menstrual days of up to 15 days per school term[2]. Absenteeism contributes to poor performance in class and low self-esteem for some girls. The construction of girl friendly toilets is a model for improved sanitation practices among the girls and the surrounding schools. The gender sensitive design of the toilets is expected to reduce school absenteeism amongst girls and make the schools attractive to qualified teachers. It is anticipated that the new toilets will serve as a model for other schools in the district and will be used to lobby for improved school water and sanitation infrastructure standards. The performance of the flush toilets will be monitored closely to provide learning about their sustainability.

[1] https://www.herald.co.zw/blair-toilets-banned/
[2] http://www.parlzim.gov.zw/component/k2/download/2315_9aecf4d5d46c62d5d810cdd215394333

Construction of school latrines

The project is constructing flush toilets with 16 pans (and urinary for boys) for a total of 824 pupils and two separate teachers' toilets at each school for a total of 24 teachers as per design.

As with the piped water, the partnership approach was adopted. Communities participated by supplying unskilled labour and locally available materials such as river sand and bricks through the school development committees. The government ministries and local authorities are assisting with monitoring, supervision and inspections. As there is little good quality river sand, pit sand and burnt bricks within the vicinity of Nyamusundu primary school, these had to be transported with the assistance of the council. The council also rehabilitated the road to enable the transport of materials to the school.

Currently, the toilets are at roofing level and superstructure level at Tabanchu and Nyamusundu primary schools respectively. Caritas Mutare will coordinate district stakeholders for timely inspections to avoid delays. Both toilets are expected to be complete by January 2018.

Materials contributed by the community for the toilets

3.6 Improved knowledge on health and hygiene.

Formation of school hygiene & nutrition clubs

The formation and capacity building of health clubs is a key component for the hygiene and nutrition awareness raising. Environmental Health Technicians (EHTs) work with both school and community health and nutrition club to monitor activities and build capacity. Village Health Workers (VHWs) and school hygiene and nutrition club coordinators are the interface between the school and community hygiene and nutrition clubs.

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School hygiene and nutrition clubs are pivotal actors in interacting with the communities, disseminating messages and bringing feedback. During the period under review, clubs were set up in both schools with at least 30 members each. Club members have since influenced others to join them, increasing membership to over 50 children at each school between February and September 2018. Hygiene and nutrition club ambassadors lead on hygiene promotion in schools. Club sessions were conducted weekly, co-facilitated by hygiene coordinators (school teachers) and pupils.

Two community hygiene and nutrition clubs were established with a total membership of 15 and 12 at Tabanchu and Nyamusundu respectively. Health and nutrition clubs also initiated savings and lending schemes to support one another to buy hygiene materials and other livelihood needs. The savings and lending scheme motivates some club members to attend weekly meetings conducting hygiene and nutrition sessions as well as making contributions, loan repayments and borrowing.

Training of trainer on hygiene and nutrition

Health club activities at Tabanchu

CAFOD trained EHTs, VHWs, School Development Committees (SDC) and school health teachers who in turn cascaded the training to school children and community clubs. The training focused on Participatory Health and Hygiene Education (PHHE and nutrition. Interactive techniques of engaging students in health, hygiene and nutrition were used based on the application of 'knowledge in action'. The method includes imaginative tools and creative participatory approaches such as drama-based games, demonstrations, role-plays, personal reflections, discovery, dance and songs. By encouraging creativity, participants feel more energised and confident, and can grasp and rehearse key ideas that will improve their health, hygiene and nutrition. Training and handbooks also include modules challenging negative gender norms and gender specific needs such as menstrual hygiene.

Nutrition training focused on the *four-star diet*; staples, legumes, vitamin A rich fruits and vegetables, and animal source protein. Together with the workshop participants, a nutrition problem tree was developed during the training to depict the root causes and effects of malnutrition. Causes cited included lack of knowledge, attitudes, prestige, diseases and poverty. Effects mentioned included high hospital bills, disability, slow brain development, stunting and death.

The WASH-Nutrition link was framed in terms of the impact of WASH-related infections such as diarrhoea on the nutritional status and how this project can improve the nutritional status via health improvements. The provision of safe water facilities and nutritional gardens at schools for school feeding will contribute to improved nutrition.

Teachers were encouraged to be on the lookout of signs of malnutrition among students and encourage students to conduct nutrition surveillance among themselves to quickly notice whether they are eating the correct amounts of healthy foods or not. The District Ward Nutrition Officer planned to engage the school development committees in advocating for the inclusion of the *four-star diet* in budgets especially for the schools' feeding projects.

PHHE nutrition training

Hygiene and nutrition awareness raising sessions

Approximately 50% of the population in the two schools' catchment area was reached with health, hygiene and nutrition information using Ward Development Committee (WADCO) meetings, field days and the meetings called for by the project. According

to 2012 census, wards 1 and 17 have a total population of 5,339 and 5,532 respectively. The VHWs provided community-level support to community hygiene. The nutrition club members mainstreamed hygiene and nutrition issues at public gatherings. The objective of these activities was to encourage villagers to take action to improve their nutrition and hygiene status. Specifically, villagers were encouraged to keep their homesteads tidy, construct sanitation and hygiene structures like latrines, pot racks, rubbish pits and to improve hygiene behaviours and practices such as handwashing at critical times, prevention of open defecation and good nutrition.

To complement the government's fight against malnutrition and stunting which is high in the district, nutrition mainstreaming was combined with health and hygiene awareness raising activities. Chimanimani district has the second highest rate of chronic malnutrition in the country, measured as prevalence of stunting, at 35.3%. (NNS, 2018)

The project also adapted to arising challenges in the environment and contributed to an effective response to the cholera outbreak which resulted in the declaration of a state of emergency by the government. The project carried out training on cholera's causes, prevention and control. Community hygiene and nutrition clubs and village health workers encouraged good hygiene practices in the surrounding community through door-to-door campaigns and addressing community gatherings. Water treatment and handwashing with soap was promoted as a key cholera prevention method. School health and nutrition club members reported that they cascaded the learning to their families.

Tabanchu and Nyamusundu primary school hygiene and nutrition clubs conducted peer teaching, school assembly demonstrations, poems, drama and songs on hand washing and cholera. Nyamusundu primary school also held an anti-littering campaign around the school yard and traditional dance to singing hygiene themed songs. They also participated in a school water and sanitation competition in their area organised by the ministry of health and child care. In previous years this had not been possible as they had no functional health club.

Cleanliness levels in schools have improved, particularly with regards to the school toilets and littering. School health coordinators have indicated that schools have increased the number of staff members that use the toilets. The school toilets are now cleaned more than once a day. Handwashing facilities were also placed at each classroom entrance to promote handwashing before eating and after toilet use.

3.7 Improved access to clean energy.

Nyamusundu primary school is isolated and does not have access to the national electricity grid. A comprehensive feasibility study into the possibility of generating hydro-electric power from a local stream was conducted. It concluded that this was

not viable due to inadequate water flow and pressure during the dry season. Furthermore, the site is approximately 1km from the school making cabling too expensive.

As a result, a solar energy system was recommended. The design of the solar system has been completed and approved by the district stakeholders. The project will install solar system for night study and security lighting, powering office equipment and charging of phones for improved communication. This is expected to be complete by January 2019.

3.8 Communications on the Isle of Man

In September 2018 CAFOD's Community Participation Coordinator, Ged Edwards, conducted a tour of the Isle of Man to raise awareness of CAFOD's work and showcase the Isle of Man funded project.

Engaging with Catholic Churches:

Ged spoke at masses at four Catholic Churches: Our Lady, Star of the Sea; and St Maughold in Ramsey, St Patrick's in Peel and St Mary of the Isle in Douglas. As well as outlining the work being done by the project, Ged emphasised that this was made possible through the generous support of the Isle of Man Government. Further, Ged briefed parish priests and volunteers, provided copies of an interim report for the clergy in each parish, displayed photos from the project in each community and spoke to parishioners about the work. Several parishioners commented on how pleased they were that the Government was funding the work, and all were impressed and proud to see the Manx logo on the Project Display Boards at the schools in the photos.

Engagement with schools:

During the tour, Ged also delivered four assemblies and workshops on CAFOD's work at St Mary's RC School in Douglas. Discussions were also held with senior staff at the school about using project materials for both educational and fundraising purposes. However, due to staffing shortages and major construction work at the school, this will be delayed until the lent term of 2019. Two new volunteers have been designated to work with the school on the project as a result of the visit.

Additionally, during Lent of 2018, CAFOD Zimbabwe project staff had a skype call with students at the school to outline the project, give the school more detail about CAFOD's work in Zimbabwe, and discuss ideas for collaboration.

Media Engagement:

News of the project has been included in the Liverpool Archdiocesan E-News for CAFOD supporters and on blogs. At the outset of the project, Isle of Man Today

published an online article on the project, acknowledging the Isle of Man Government's support of the project. Finally, Ged gave a radio interview to Manx FM's Judith Ley, which is anticipated to be aired on her Sunday morning religious affairs programme.

Feedback from the tour:

There were several key features that people on the Isle of Man highlighted as being particularly inspiring:

- The vital need for water (drinking, hygiene, toilets and crops) as well as for the long-term sustainability of the schools;
- How CAFOD staff worked with the communities and local officials as well as the school staff and children rather than imposing their ideas;
- The sheer scale and difficulty of the work;
- How local people not only made the project their own but engaged in it by running the pipe through their land;
- The long-term training and emphasis on sustainability.

Ged speaking at mass at St Mary's Douglas

Workshop at St Mary's RC Primary School

4.0 Sustainability

- Sustainability was a key design consideration in the piped water schemes. The schemes use gravity energy to convey water from water sources to communities and the UV water treatment system is solar-powered. The schemes are therefore fully on renewable energy and cost effective for the communities.
- The security of key infrastructure is critical to the sustainability of the piped water schemes given the risk of vandalism and theft. The solar panels and the UV water treatment system were therefore sited at households to prevent

theft. To incentivise the vigilant safeguarding of the infrastructure, water points were installed at these households.

- A multi-stakeholder approach was adopted starting at project conceptualization and will continue until the project ends. The project developed working relationships with different stakeholders such as traditional leadership, school development committees, DDF, Ministry of Health and Child Care, Public Works Department and Rural District Councils. These bodies will provide essential follow up and oversight of project components. The relationship with contractors has been created for sustained back-up support beyond the life of the project.
- The project has respected and honoured community decisions in determining the position of water points in their respective villages. This will ensure ownership and convenience for all beneficiaries who will in turn safeguard and maintain the infrastructure.
- The project also encouraged women to assume leadership roles and responsibilities for maintaining water resources, decision making and effective hygiene practices as they are the members of most community affected by WASH challenges.
- The process of development of water point by-laws by the beneficiaries which are guided by the by-laws of the local authority have been initiated. The by-laws are expected to address issues of water governance, including use during peak demand periods, maintenance and security. The next implementation period will focus on ensuring that water point committees have enacted and enforced the by-laws for sustainability.
- The introduction of user fees, which will be determined by the beneficiaries of each water point, will ensure the availability of finance for necessary maintenance activities. The school development committees have committed to set aside a ring-fenced WASH budget starting next year.

5.0 Timelines

While hygiene promotion activities have been conducted in line with the workplan other activities are slightly behind schedule. Delays resulted from a new requirement to get authorisation from the Ministry of Education to work with schools. It took approximately three months for the application to be authorised by the Ministry of Education's provincial and national offices.

Activities at Nyamusundu primary school were delayed due to communication and transport challenges. Mobile phone network coverage is very poor at the school and surrounding areas because the terrain is mountainous. The gravel road that leads to the schools was also not trafficable. However, the project stakeholders successfully lobbied the council to rehabilitate it. In addition, sand and bricks are not locally available in the area and had to be imported.

Procurement took longer than anticipated due to fluctuating prices associated with economic uncertainty which took place in the country during the pre and post-election period. Suppliers revised their quotations several times and the materials could not be purchased from a single supplier due to shortages. CAFOD negotiated for payment in US$ to curb price changes.

The cholera outbreak led to a temporary ban on public gatherings. This caused delays in community work such as the gathering of stones and trenching. However, the project intensified door-to-door cholera prevention awareness campaigns during this period.

The outstanding infrastructure development works have been incorporated into the first quarter of the Year 2 work-plan. The project is still on track to achieve the intended outcome by Year 2.

6.0 Stakeholder involvement

The project was developed and implemented using a multi-stakeholder approach by using the DWSSC. Its implementation involved a series of activity-based review and feedback meetings involving council and government departments. All relevant stakeholders are involved in planning and feedback meetings with the community as well as progress monitoring and supervision.

Communities are actively involved in project activities. The following are examples of activities undertaken by communities;

- Pipeline trenching
- Laying of pipes
- Covering trenches
- Fitting of water pipes
- Carrying river sand, pit sand and concrete stones
- Trenching septic and soak away tanks
- Monitoring builders
- Cholera awareness during community meetings
- Moulding and providing bricks

Gender, disability and child protection issues were discussed during community launch meetings when roles and responsibilities were agreed upon. Some tasks such as carrying piped and cement to water sources on top of the mountains were given to men. Meeting times and working hours were adjusted to suit women as they have other household chores. Disabled persons and children were exempted from all manual work.

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7.0 Visibility

A Stand-up banner was produced for donor visibility. Communication on the project donors was done at district and community level launch meetings.

Project Banner at Nyamusundu primary school head's office