

St Francis of Assisi Anglican Church, Tsholotsho, with the Solar Installation

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From the Chairman, Carl Garner

An Easter Message ... Water

There is quite a lot in the bible about water and wells and springs. It was at Jacob's well, originally dug by the patriarch, that Jesus spoke to the Samaritan woman who had come down alone in the heat of the day to draw water with a bucket (possibly a leather one) from the well. Jesus was resting on the side of the well, his disciples having gone into the local town to buy food (John 4:1ff). He asked her for a drink of watershe was surprised that he was talking to her at all, both because she was a woman and because she was a Samaritan. Jesus replied that if she had known who he was, she would have asked him and he would give her "living water."

She understands Jesus' "Living water" in its simple sense of flowing water, gushing water - water that would be more easily accessible, without having to lower a bucket some 100 feet into Jacob's well and winding it up. The stories of Moses being led by God's guiding to smite the rock in the wilderness of Sinai, and the artesian water gushing forth as the limestone crust was broken, is an example of such water (Exodus 17:6, Numbers 20:11). Water is of course absolutely necessary for human life. And our God of course knows that. It is a particular issue in arid places: wells are one solution, tapping into underground water.

It is an issue in our partner dioceses - being able to secure clean water all the year round. When we received a substantial legacy from Jill Hetherington, who had been an active member of the TZABA Committee, and founder of M.O.P, we agreed that we should make use of the expertise and talent of our Treasurer, Sandy, and ask the dioceses to suggest where solar power units could be set up to pump up water from boreholes on church property, or places under the aegis of the church. This copy of Partners is especially devoted to describing the implementation of this project, and its making water more accessible.

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In our Lord's discussion with the Samaritan woman, it becomes clear that he is offering to quench her spiritual thirst. This is what he means when he says "Whoever drinks of this water, will thirst again, but whoever shall drink of the water that I will give will never thirst - the water I shall give will become a spring of water within welling up to eternal life". And what is that water? Jesus reiterated his promise at the Feast of Tabernacles, mentioned in John (7:37-38) "If any one thirst, let him come to me and drink. Whoever believes in me, as the Scripture has said, "Rivers of living water shall flow from deep within". St John makes clear what this water is: "Now this he said about the Spirit, which those who believed in him were to receive: for as yet the Spirit had not been given, because Jesus had not yet been glorified (John 7:39)." The path to glorification was the way of the cross. Our Lord's suffering and death opened the doors of grace. That was the price for our salvation and for the the promised gift of the Holy Spirit. The glorification began with his resurrection and culminated in his ascension, "It is to your advantage that I go away, for if I do not go away the Comforter will not come to you, but if I go, I will send him to you (John 16:7)." May we ever know the living water of the Spirit welling up within us, and quenching our thirsty souls.



Providing water, using Solar Power, to church communities across Zimbabwe

During this past year TZABA has been focussing on the provision of solar powered installations for pumping and storing water in church communities right across Zimbabwe.

The preparations started early on in the year. A contractor was selected to provide and install the equipment. Every site was carefully selected from the range provided by the offices of the Bishops in each Province. An Engineer was engaged to visit and support the programme.

This required that every location had to be visited and carefully reviewed with the community. The sites selected were at schools, clinics, churches in rural and urban areas in need of water for irrigating vegetable gardens.

They all had an existing borehole which, firstly, needed testing for the output. This required running a borehole pump for a number of hours and continuously checking the output and water level. Would the borehole be sustainable in a dry period?

Following the testing, the correct sized borehole pump was selected and carefully installed to the correct level in the borehole. Obviously, below the expected pumped water level, but making sure that the sludge at the base of the hole would not be drawn up into the pump.

Close to the borehole, a deep hole was excavated and a 6 metre high frame was erected carrying 4 to 8 solar panels, with an invertor mounted at the top. The height was selected to minimise any possible attempt at theft. And, in addition, the panels were welded into the frame to prevent easy removal.

At the same time, the footings for at least 1 large water tank were being dug, and the frame was erected. Pipework was laid to connect the borehole pump to the tank, and also to take the water from the tank to the school, community, clinic, houses, or gardens – wherever it would be needed. Valves and controls were fitted to manage the delivery.

Naturally, all of this work was closely coordinated with the Diocesean Rural Officers. They have been key players in ensuring that the programme is integrated with the needs of the community and that the community can assume responsibility for the installation and its ongoing management.

Meters have been installed on all the boreholes, and the communities have the responsibility to record and check the output. The Contractor is providing backup support where needed to make sure all is functioning as it should.

Mr Sandy Elsworth, from TZABA, has managed the overall programme, and was on hand at every site to ensure standards were maintained. His experience as a hydrogeologist in the region ensured that the programme was delivered in a cost-effective and efficient manner.

But he was ably assisted in particular, by Mr Darlington Musekiwa from the Central Province, based in Gweru, and by all the other officers from ARDEZ, particularly Mr Matthias Thompson from Masvingo Province, Rev Moffat Musasa from Matabeleland Province, and Mr Artwell Sipinyu in Harare. Thanks are due to them all.

Thanks also should be given to Eng. Mangwiro who was engaged to guide and assist on the engineering aspects of the project.

Masvingo Province

A number of sites in need of sustainable water supply were identified in the Province. Some sites just needed testing to check on the availability of water in an existing borehole.

At St Boniface, Mavedzenge, the Mission and Primary School they have a borehole with an existing solar setup. Unfortunately, our testing showed that there is insufficient water in that borehole and a new source would be required.



Extra testing of a borehole at St Francis Mission, Mavedzenge, was carried out while the team was there, and this proved more positive with water available. This can be scheduled for inclusion in the next round of work.

At Daramombe Mission Farm, while the water is present in quantity, the borehole needs further cleaning and development so the final install was not carried out.



Matabeleland Province

Four locations were identified, ranging from the remote town of Tsholotsho to St Cyrene Mission School near Bulawayo, and two closer to the city.



St Claire of Assisi in Parklands, and the Church of the Good Shepherd in Rangemore now both have a fully functioning solar powered water system.

At St Francis of Assisi Church in Tsholotsho, the system is working well through 1 new storage tank.



Also at St Cyrene, the new system is fully functional, supporting the farm and school and the clinic to provide continuous water.



Central Province

The four locations selected for installations in the Province were widely distributed, from All Souls, Rondo, north of Kadoma, to St Davids, Sunrise, many hours south of Gweru.

At St Davids and at St Andrews, Mkoba, problems were identified with the construction of the boreholes which have halted the installation process at these sites. But at All Souls, we have received very encouraging messages: "The pumps have helped the community very much because it solved the problem of water challenges, at both the school and the community. The School now has a nutrition garden because water is available all year round."



At St Philemons, Gambiza, we have received the message: "The community here have benefited a lot from the system installed. So many water problems were solved. The school has also benefited a lot since the water system also includes the school. Many thanks."

Manicaland Province

Installation of solar powered borehole pumps and associated storage tanks was completed at St James School, Zorogoro, and also at St Catherine of Alexandria, Rusape. The systems are proving very helpful to the communities there.

From St James is the message: "We used to dismiss the pupils early due to water shortages caused by Zesa cuts. Now, it's a thing of the past. Flowers are flourishing. Even people from the local area appreciate the coming of the water solar system because they can now access water at any time. The school agricultural dept is happy. They strongly hope and trust that their projects will be sustained by this system throughout the year. Many thanks to TZABA for their support and funding."



At St Catherine of Alexandria, the new solar powered pumping system is fully operational into the 2 storage tanks. The original tank stand, however, required immediate attention as it was likely to fail. In addition, it transpired that the pipeline serving the girls' hostel was too small a diameter and required replacement. All of this was carried out and the system appears to be working well now.



Message from our Zimbabwe Project Supervisor, Darlington Musekiwa, Central Province

To a great extent TZABA is complementing The Anglican Diocese of Central Zimbabwe in preaching a live gospel. Indeed as James 2 v.s 15-16: If a brother or sister be naked, and destitute of daily food, And one of you say unto them, Depart in peace, be ye warmed and filled; notwithstanding ye give them not those things which are needful to the body; what doth it profit?

The programming of the Diocese is in accordance with the sustainable development model. The model starts from the vulnerability context and goes on to the five capital assets which the diocese adopted as the thematic planning areas. The assets are as follows: Natural, covering the environment; The human, for aspects on those items on survival; Economic, being the creation of resources for response; Social, on relationships and the Physical, covering the infrastructure.

A holistic integrated approach is henceforth the order of events in the Diocese. TZABA with the solar water pumping project is responding to majority of thematic areas. The project speaks to environment and climate change on emission reduction. The solar water pumping is improving food security as well as contributing to health through portable domestic water. The project is contributing to building relationship as communities meet at water point. The water is being accessed by non Anglicans as well so the evangelism component is going far. The solar water pumping is complementing some other projects TZABA and other partners are supporting such as Chicken farming and horticultural projects.

The Diocese is undergoing crucial sessions on water and sanitation from both TZABA and other stakeholders in the country. We did discover a big knowledge gap in running water and sanitation projects in the diocese.

The processes of engaging drillers with minimum borehole quality standards are being finalised. The gap on water point records has been attended to and the issues on capacity test for holes introduced. In addition to funding of installations the Diocese also received an administrative grant of 2500 dollars that was used on logistics during the implementation of the project.

The Diocese is continuing to work with the centres that benefited under this water project to develop learning centres for community in various livelihoods interventions.



Medical Orphan Projects

MOP (as it is known) continues to support Anglican caring centres in Zimbabwe & Botswana. They include Holy Cross Hospice in Botswana, Bonda Childrens Home, St. Patricks Clinic Gweru, the Avondale Centre, Mabvuku, and Daramombe Clinic Masvingo.

At Bonda Mission we support the small orphanage looking after 20 children between 4 and 18 years of age. Our support allows them to attend the local school, St David's, and to keep the orphanage functioning. The Sisters are getting elderly, and the Orphanage requires alteration to meet the new government regulations which is costly. And the children themselves all have heartbreaking stories of abuse or disownment from their families, and are very vulnerable. We will look at further support in the future on the water needs, currently met from a very unreliable connection from the hospital well.

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