

# **FFM END OF PROJECT REPORT**

## **TAMUKA DRIP IRRIGATION**

### **INTRODUCTION**

The just completed setting up of a drip irrigation system at Tamuka Garden is part of an organic agriculture scheme initiated in 2015 at the request of the community farmers. Although the belief in conventional summer cropping is wide and strong, the villagers are increasingly recognising the need to go organic and small-scale. Factors such as erratic rains and diminishing sources of agricultural labour have contributed to the increased mobilisation in organic gardening. Tamuka Garden is roughly 1 hectare in size and is situated within 250m of Musaverema Dam with a water capacity of 4000m<sup>3</sup>. The construction of Tamuka Garden was completed on April 4<sup>th</sup> 2018 with the FFM supplying the fencing materials and the villagers doing the rest of the work by themselves.

### **DELIVERABLES**

The purpose of this assignment was to install a solar-powered drip irrigation system at Tamuka Garden. The FFM contracted the services of a Masvingo company named Irrigation Services after the company had done a survey at the garden site on July 19<sup>th</sup> 2018. The design was such that the project needed a 5000L water tank beamed on 3M steel pillars, a submersible solar-powered water pump with solar panels raised 3M high, a 250m channel with PVC pipes as well as 2475m worth of drip lines, among other minor sundries.

### **CHALLENGES**

Procedures to obtain green light from district authorities were lengthy and obstructive, sometimes going backwards rather than forward. Since the registration of the FFM Trust in February, the project was supposed to keep on hold until late November when the Rural District Council approved the organisation. Yet at one point we were made to waste time liaising with provincial authorities only to be referred back to the district. Sometimes we had to pursue the procedures of the Private and Voluntary Organisations (PVO) Act when we

were registering a Trust and not a PVO. It seemed that even the officers grossly lacked knowhow in handling the matter. All this threatened the FFM year with idleness.

Secondly, the project was once threatened by the unaffordable prices charged by trainers. We were supposed to engage specialist organisations whose teams were both experienced and skilled in the postmodern concept of organic farming. However, the approached organisations charged us outlandish prices which we could not accept, especially as the service providers were fellow development agencies who should understand the value of money. This again would have meant lack of progress if we had relied on external expertise alone.

Then worst of all, the project was conducted in a very difficult financial situation. Prices of services and supplies were inflated and some materials were unobtainable. It was very difficult to plan in such an unpredictable economic scenario. Worse still, the deterioration was even more rapid after we had paid the down-payment of \$5797. All of a sudden the prices shot up and the RTGS money lost value (in 1 week the \$5797 was devalued to USD1932 and the devaluation continued). The money that we had paid the contractor could not buy the sufficient USD hard currency to complete the project. USD cash was only obtainable in the black market where the rates were changing by day.

## **SUCSESSES**

The FFM wishes to say well done to the traditional leaders of Matibi who stood by the gardeners in the time when district authorities seemed to be hard on protocols. The village heads were in constant touch with the FFM requesting the agency to expedite the work at the gardens despite the instructions by district authorities to wait. The progress made at Tamuka Garden during that waiting period is owed to the tenacity of the village heads who insisted that the projects continue and who assured the FFM their support in case of disobedience charges. In short, the progress made in Tamuka Garden over the year was chaperoned by the traditional authorities who had to clash with municipal authorities several times over the delayed endorsement of FFM.

The villagers themselves operated with a single mind and were able to get all labour requirements ready each time the FFM had to intervene with materials. They cleared a vast area of land on which the garden was to be situated; they watched over the fencing materials

for nearly 3 months before they could receive the local government go-ahead to use it; they supplied all the labour for trenching and fencing; they also had to guard the irrigation materials during the time when the contractor was struggling with financial predicaments. Most of all, they showed to be a very patient and strong-willed communal unit.

We would also wish to extend profound gratitude to the Agritex Crop and Livestock Department for rising to every occasion when the gardeners needed technical assistance. For all the time until late November, Agritex officers were not allowed to work with FFM because it was not yet sanctioned. Fortunately one Agritex Officer is a Trustee in the FFM Board and would understand the FFM situation easily and help explain the situation to his department. In particular, the gardeners benefited tremendously from Agritex through organic training after the Agritex Officers had undergone training in a programme funded by the Food and Agriculture Organisation (FAO). This programme was very helpful because it came up at that time when the FFM was having difficulties identifying trainers with reasonable prices. The trainings eventually went ahead at no cost, with the trainees emerging as trainers of new trainees for sustainability.

The FFM also successfully negotiated with the contractor to soldier ahead with the project despite the financial chaos. At some point they intimated (albeit indirectly) that we top up the down-payment but we successfully convinced them to stomach the challenges and only revise the terms after job completion. We also made sure that the project quality was not compromised by the said challenges. Fortunately the local Agritex Officer had ample knowhow about irrigation pumps and we relied on him to ensure a good quality system. Thus the project took a lot more time than planned and costed the contractor more than budgeted but in the end it was a successful project. Instead of paying \$5797 balances as telegraphic transfer, the contractor requested that we pay USD2906 cash.

## ATTACHMENTS



*A drip demonstration session led by Irrigation Services engineer. This 45m line is one of 55 such lines installed in the garden.*



*The engineers had to extend the length of the conduit beyond 250m to place the pump deeper inside the dam.*



*The solar source of power for the water pump*