Mulanje Mission Hospital

Flood Relief Report 2019

Reported by

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Introduction

Mulanje Mission Hospital serves 72 villages in its catchment area, in these villages the population is estimated at 85 000. In March 2019, the Southern part of Malawi experienced heavy rains in the wake of cyclone Idai which caused a lot of damage to agriculture fields, houses, pit latrines and water sources in the catchment area of Mulanje Mission hospital. This led to an increased risk of diarrhoeal disease and epidemics of cholera and typhoid. With regular cases of cholera in south Malawi, this is a real risk, however, the hospital has not registered cholera during the past two rainy seasons.

Figure 1: Collapsed pit latrine in one of the villages.

Assessment

An assessment was done by the Environmental Health Department and the Medical Director to assess the damage. It was determined that the priority for public health was the restoration of latrines and watersources. 3000 latrines and 4 boreholes needed rebuilding. In addition, two damaged houses were families with orphans stay were targeted for reconstruction. During the project, two additional needs at the hospital were included: a septic tank that had collapsed due to high watertables and a borehole pump that needed repair.

Mobilization of funds

Through an emergency appeal, funds were raised from donors within and outside Malawi. In total, more then forty organizations, groups, companies and individuals combined efforts and supported the project. We sincerely thank all friends and partners who supported this work.

Implementation

The Environmental Health Department purchased and distributed building materials for reconstruction of pit latrines and two houses where orphans live. Pit latrine beneficiaries received cement, deformed bars and wire, which was used for making concrete slabs and beneficiaries received also iron sheets, roofing nails, wire nails that was used for roofing the pit latrines.

The design for the pit latrines is an improved design with a larger slab and larger roof surface then was common before. This leads to longer life of the structure.

The beneficiaries were very much involved, contributing to the project through collecting sand and quarry stone that was used in making concrete slabs. In addition the beneficiaries provided work force in construction of concrete slabs and also in digging the pit of the latrine. The programme saw especially women conducting different activities like digging pits, collecting sand and quarry stone.

Figure 2 Locally available sand and stones contributed by villagers

Figure 3 and 4 shows men pouring concrete latrine slabs

During construction of the pit latrine structure, the concrete slab, *fig 3-4,* is placed on a previously dug pit, *fig 5.* The pit is about 2 m deep, and 1x1,5 m wide.

Figure 5: a concrete slab placed on a pit ready to be built into a fully pit latrine.

The building of the pit latrine structure remained the responsibility of the beneficiary. Figure 6 below shows a fully constructed pit latrine.

Figure 6: a finished pit latrine.

After a pit latrine is completely built, the household members are encouraged to be using it, and are also encouraged to have a locally made hand washing facility. The hand washing facility is made of bottles that are tied to wood as it is seen in the picture and is called a tippy-tap.

Beneficiaries of the programme are very happy to receive materials for pit latrine construction. The programme will help in uplifting the

level of hygiene in the area.

The project has assisted in reconstruction of 3091 latrines in its villages of implementation, 91 more then targeted. The following villages have benefited:

Name of village	***No. of latrines***	***Name of village***	***No. of latrines***
1. Demula	96	2. Bwanali/ chikumbu	143
3. Mbwina	49	4. Nkhuku	69
5. Mandanda	72	6. Sikoya	43
7. Salimu	30	8. Nakutho	77
9. Mwanamvula	72	10. Bwanali/ mabuka	65

11. Ng'oma	72	12. Gilbert	30
13. Khoviwa	50	14. Chilenga	30
15. Namputu	80	16. Samson	30
17. Sitolo	36	18. Sembezi	23
19. Kuthanguwo	20	20. Makoloma	29
21. Tambala	88	22. Kathebwe	57
23. Nkhonya	88	24. Naliya	71
25. Chikwenda	40	26. Makwale	40
27. Mponda	86	28. Wasi	88
29. Mlatha	15	30. Kadewere	119
31. Chilembwe	52	32. Robeni	74
33. Njema	63	34. Salamba	93
35. Namijingo	136	36. Mamera	84
37. Sugar	43	38. Ekhamuno	52
39. Liwaya	37	40. Tambala /mabuka	80
41. Tchaluwa	30	42. Chilingulo	53
43. Lowa	106	44. Musisi	40
45. Misanjo	58	46. Chibanthi	35
47. Mwamadi	51	48. Nankhumwa	125
49. Namatingwi	28	50. Kangoma	43

Boreholes

Chiefs were consulted to identify areas whose water sources have been washed away or destroyed by the floods. Those areas with no other source of water within short distance were prioritized. Boreholes were drilled in these villages: Luwanje, Namputu, Mkhuku and Kandulu. All provide good water.

Each village receiving a new borehole selected a committee which is responsible for sanitation and maintenance and repair of the borehole. The committee comprises of 11 members including the chief of the village. These committees were trained for 5 days of which 2 days were for borehole repairing lessons and the rest were for sanitation and community involvement.

Other benefits of the programme to the community

The project has benefited the communities in a sense that those people whose pit latrines were destroyed by the heavy rains had an opportunity that their pit latrines were reconstructed. This reduces the risk of disease, especially cholera and other diarrhoeal diseases. The project had also indirectly benefited other non intended beneficiaries. These non intended beneficiaries included carpenters and brick layers.

Brick layers and carpenters in these villages were being hired with an aim to assist in construction of the superstructure of the pit latrine. Household owners did hire brick layers and carpenters so that the superstructures being built should be strong.

Carpenters were helping beneficiaries with roofing of pit latrines and also selling doors which people were buying so that their pit latrines are secure. Amount of money charged per service rendered differed from one location to another. According to one of the carpenters, Malizani Machemba who resides in Namijingo village said that he charges 500 Malawi kwacha for a job of roofing a pit latrine. In his point of view he said that the project had created employment which helped him and his family.

Builders in the communities had also an opportunity in getting jobs by assisting beneficiaries in building the superstructures of pit latrines. According to Mr Khavitha who is a village brick layer of Kang'oma village, assisted two beneficiaries with building. He said that the amount he received from them assisted him and his family.

The other non intended benefit of the project to the community is that it created a good relationship between households, and between communities. During the project

implementation different people and different communities were interacting on different issues hence maintaining good relationship.

Some of the activities that initiated good relationship were like people working together during making of concrete slabs. All beneficiaries were working in clusters in their villages. In these clusters beneficiaries could bring their food and cook and share it to one another.

In addition to sharing of food, people or communities were borrowing each others building tools like shovel, wheel borrows. The issue of lending and borrowing of these tools made good relationship between people or communities.

From the flood relief funds, repair to one of the hospital boreholes were also paid and one septic tank that collapsed due to the floods was repaired.

Case study 1

Effie Chiwale hails from Demula village in Traditional Authority Mabuka. She is one of the beneficiaries of reconstruction of pit latrines.

Effie's household has six members. Her household lost a pit latrine during the heavy rains of March 2019. Since then the family had problems with proper human waste disposal.

With assistance from the Health Surveillance Assistante of her village, she was advised to make a temporary pit latrine for her household. Although Effie made a temporary pit , it was being constructed with materials like grass being used for thatching which easily leaks and also she used wooden poles to support the toilet structure, which also rots and stops supporting the superstructure hence it was at risk of falling down by sinking into the pit.

Effie was included in the flood relief project. She was required to find quarry stone, sand, bricks, building tools like hoe, shovels, wheel borrows and provide free labour. Effie as one of the beneficiary of the project did her roles on her own. She collected sand and quarry stone. For Effie to find quarry stone, she had to walk a distance of 600 metres to the place where she could find the commodity and then covered the same distance walking back to her home where a latrine is situated. She walked this distance while carrying quarry stone on her head.

This job took days for Effie to finish because of the long distance that she travelled. The quarry stone that she collected measured two wheel borrows. For her to make carrying of the stones easy, she was using a 20 litre bucket.

Effies hardworking spirit made her to have a concrete slab and she received iron sheets, wire nails and roofing nails. She has constructed a new toilet which is durable. The six member household has now improved their hygiene level.

Figure 7: shows women digging a pit latrine

Case study 2

Aida Ndawala comes from Namijingo village. She was one of the beneficiaries of the project. She is widowed and lives with her brother. Aida's pit latrine was destroyed during the heavy rains of March 2019.

Aida moulded bricks on her own and she also dug a pit for the latrine. It took her days to finish her roles. When her community heard about her commitment they started persuading her

brother to join his sister in building the pit latrine. At last her brother help her in building the superstructure of the pit latrine.

When the building of superstructure was finished she received three iron sheets and roofing and wire nails to make the roof of the pit latrine.

After the reconstruction of the pit was over, Aida constructed a locally made hand washing facility outside her toilet.

She uses recycled bottles string and wood pole. She ties these materials together so that when she places a feet on the wood pole, the bottle bends and water comes out without touching the bottle with hands.

Figure 2: Aida standing outside her pit latrine.

Figure 9: Aida washing her hands using a locally made facility

Financial report

The income and expenditure report report below includes the entire project: 3091 latrines, 4 boreholes and the renovation of two houses. The house renovation carried a total cost of MK 1,189,487. The cost per latrine including overhead cost was MK 25,205 or 34 US$.

The below shows a small surplus, which will be used for future water and sanitation needs, especially the maintenance of boreholes.

Currency	***Income (MK)***	***Expenditure (MK)***	***Purpose***
Euro 25830		62965484	Materials for latrines and two houses
exchange rate 840	21697200	10108589	Borehole drilling and pump installation
		555000	water point commitees
GBP 54234		1405500	specialized labour (cutting iron bars)
exchange rate 950	51522300	142000	Transport cost building materials
		22000	tools
USD 31996 @ 740		356050	other costs
exchange rate 740	23677040	560000	repair of hospital borehole
		1353000	hospital septic tank replacement
Total (MK)	96896540	14534481	15% administration, supervision, office costs
	96896540	92002104	
	Balance	*4894437*	*reserved for water and sanitation needs*

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February 2020