HOH, HOHO, Scholarship Program Mary Beth Zollars, Emmanuel Chiimba

HOH Children's Home Report, November 2022/ Compiled by Elina Nyabote: Children: 24 (13 males and 11 females) Our children are in good health.

- Tanatswa Nyagume grade 6 was elected to prefect at Nyadire Primary
- Bright Mumanyi and Shelton Chitewe completed their 'O'level exams, now awaiting results. Bright is interested in building and Shelton in agriculture. We intend to register them with Tabudirira Training Center in January 2023.
- The girls are being taught to make reusable sanitary pads.
- Staff 10: (5 males and 5 females) Emmanuel and Lindarose are on leave.
- The intern who had been with HOH for the past 3 months has completed her internship and she is no longer with us.
- Projects:

Harvested and sold watermelons

Completed harvesting potatoes, now on sell.

Harvesting and selling tomatoes.

Harvested butternuts.

Planted 3 hectors of maize, half hector of beans and half hector of groundnuts

Drew water from Nyaitenga river into one of the fish pond, now waiting for funds to purchase 6000 fingerlings.

Piggery, cattle and goat projects doing well.

Work in progress

Installation of kitchen granite surfaces

Construction of pigsty's

Construction of poultry run HOH

- The last secondary schools to receive uniforms were supplied with uniforms on the 29th of November.
- Gratitudes

Bandira family and grade 4 pupils at Nyadire Primary school for holding a birthday party for our children on the 02/11/22

TNC for the continued support

HOHO - 20 schools in all

St. Paul's UMC's renewal campaign successful with 106 sponsored children. Roster updates are almost complete.

Outreach Committee:

Chairperson: Noreen Chitengu (Manhemba Primary)

Vice Chair: Tawanda Muswe (Rudawiro Primary) Secretary: Esnath Zimbira

(Nyadire Primary)

Treasurer: Nicodemus Bandira (Nyadire High School) **Finance Secretary**:

Fiona Chiroroma (Nyakabau Primary)

S.Y.STEM

STEM COMMITTEE:

Chair: Mr. Musariri – Head of Science Department at Nyadire HS Secretary: Mrs. Portia Mambwere – Math teacher at Nyadire Primary

Plus: Bruce (mathematics teacher HS), Mabel (computer teacher HS), and Maria (ECD teacher at PS). The issue of **WiFi** will need to be addressed in order to supply the Coding Club with the necessary next steps. Tinashe Chiimba is working on clarifying the quotations.

Petronella Mlambo, a Zimbabwean living in the U.S., will visit Nyadire 15 February 2023, 7am-4pm, for a coding club meeting and to meet individually with the leaders. Pet went to school in Nyadire and is now working in IT.

HOH

Approved wire of \$1,000 to purchase 4 new HOH vehicle tires plus a spare and also \$769 for the purchase of a new freezer (latter completed 1/26/2023 per Emmanuel's update)

Tractor - Scott Sanford helping to determine appropriate size tractor. Budget Review (update from Drew)

Funds for drip irrigation sent and items were purchased and picked January 18. Need for storage of maize (shed/farmhouse)

Tinashe Chiimba has received a proposal for **WiFi** from TelOne. It is for 3 departments: HOH, Workshop, and the Primary School. (Total cost about \$3,700) Elina Nyabote, HOH administrative assistant, is leading the **GEP program** for the HOH. She will divide GEP efforts between the few girls who are old enough for the program and the children who are **bedwetters**. She will be making absorbent pads for those children in need.

SISTER RUT SCHOLARSHIP PROGRAM:

- Rutendo Mupfawa, accepted at the University of Zimbabwe, Honours Program for Accounting and Finance; 2.2 student
- Blessing Mabii, accepted at Midland States University, Business Studies, 2.2.
- Tinashe Mapfumbidze, (MSU) 4.2 student; Midland States University; Business Management
- Campion Mujuru University of Zimbabwe; medicine; 4.1 student; doing attachment at Chivhu Hospital.
- Lovemore Mbozvi; Manicaland State University, Mining Engineering. He finished his exams and his final presentation. Awaiting marks.

- Bernard Madyauta University of Great Zimbabwe, Regional and Urban Planning;
 4.2 student.
- Fungai Chigumbura MSU, Human Resource Mangagement, 4.2 student, found attachment at the Ministry of Agriculture.
- Lorraine Kapembeza: Africa University, Accounting. 3.2 student.
- Ruth Makoni: HOHO/O-Levels/A-Levels: Catholic University, Business Management and Information Technology; 3.2 student, starting attachment.
- Takunda Pedzayi: Midland States University, Human Resources Management; 3.2 student, will soon start attachment.
- Raymond Chimbwanda: HOHO/O-levels/A-levels: University of Zimbabwe; Financial Economics and Trade; Real Estate; 3.2 student.
- Stephen Chadamoyo: O-levels/A-Levels: University of Zimbabwe, (tuition only); Physiotherapy; 3.1 student.
- Panashe Mafemera: O-levels/A-levels: Bindura University, Peace and Governance (tuition only) – 2.2 student.
- Nyasha Given Katema: (HOH) O-levels/A-levels: Zimbabwe Institute for Legal Studies. The school offers a variety of certificates and degrees, leading to careers from paralegal to lawyer. Nyasha will proceed from year to year, based on his interest, needs, and success. 2nd year student.
- Praise Mushamba, accepted for 2022 September intake, Midland States University, Human Resources Management, tuition only. 1.2 student.
- Tinotenda Nyaumba; Harare Polytechnic; hospitality; one term only On hold:
- Josphat Nyatoro (HOHO): O-levels: changed intention to pursuing 3 more O-level subjects in order to attend Harare Polytechnic. His scholarship will be revisited in 2023.

• TABUDIRIRA VOCATIONAL CENTRE:

Leeroy Nyamukapa (O-levels Nyadire High School); Tabudirira Vocational

- Centre, Building Studies, doing attachment
- Angeline Mujuru (Campion's sister) (HOHO): O-levels: Tabudirira Vocational Centre, Hotel and Catering, found attachment at Nyadire Teachers College, successfully passed all exams! CONGRATULATIONS!
- Yeukai Gwati (HOHO) is enrolled at Tabudirira Vocational Centre for Hotel and Catering, 1.3
- Last Chindoto, sponsored by Pittsburgh District, carpentry, 1.1. Bright Mumanyi (HOH); building, 1.1.
- AGRICULTURAL SCHOLARSHIP: Elvis Mtandwa Tabudirira Vocational Centre in agriculture, starting
- attachment in March.

- Kurirai Rodney Matonga (Rev. Forbes and Nyaradzai's son has begun his attachment for his agriculture diploma from Blackfordby Agricultural Institute in Agribusiness and Farm Management, will complete his attachment in May.
- Tinashe Katsuro: agriculture at Africa University, 1.2.
- Delight Katsata, graduate of Katsukunya Secondary (O-levels) and Nyadire High School (A-levels) BSC Honours Program in Crop Improvement and Seed Systems at the University of Zimbabwe in August, 1.2 student.
- Shelton Chitewe (HOH); Tabudirira Vocational Centre, agriculture, 1.1 New Candidate for 2023: Praise Tsaurai, agronomy.

Hearing Innovation Deborah Swineford, Tendai Mushapaidze

Leah and Deborah Swineford focused on the HI program during the January VIM trip. The new school term started on January $9^{\mbox{th}}$

- Mitchell, Clayton, Kundai and Kudzai completed grade 7 last term
- Kudzai is attending Emerald Hill (\$400 fees paid by TNC/ parents pay \$50)
- Plans for 3 other students are to attend vocational training at Danhiko
- There are 2 new students this term for a total class enrollment of 20. There are 12 girls, 8 boys; 6 students in the upper level, 14 in the lower level
- Deborah updated photos and information
- Deborah met with the Nyadire HI team to discuss classroom and program needs and also school fees. Classroom needs identified: blackboards, repair or replace broken desks, bookshelves, storage/file cabinets. Tendai confirms Nyadire Primary's responsibility to provide blackboards for both classrooms and to repair broken desks.
- The expectation by Nyadire is that the first term fees would be paid at the same rate as the previous term; if adjustments are needed they can be made in the 2nd term.
- Review of fee policy of TNC paying 75% of cost with family assuming balance revealed that families are not paying the balance and also that those students who are "fully sponsored" still do not have coverage enough to meet the 75% standard (ie, TNC funds are falling short).
- Deborah observed teaching methods and reviewed an evaluation with the teachers at the end of the week.

Deborah, Leah, Simbarashe and Charity visited Emerald Hill and Danhiko.

- Charles Niwita is in his 2nd year, He had been unable to start due to fees not being paid. TNC paid their share of the cost and explained our policy to the headmistress, Sister Hilda.
- Saw both Kudzai and Charles and presented them with backpacks, sponsor mail, and mini boarding kits.

Leah taught after school Bible lessons for the students, focusing on who Jesus is. She incorporated crafts and signed songs throughout the week.

Mini boarding kits were distributed to the students along with sponsor mail.

Deborah and Scott Sanford drafted a possible new sponsorship program and fundraising model

Hospital & Pharmacy Support Mark LaRosa, Dr. Larry Tanyanyiwa

REPAIRS:

- The School of Nursing ceiling repairs are nearly complete despite difficulties getting wire transfers to materials provider, Halsted. Many thanks to Halsted for advancing materials so that ceilings could be repaired before the rainy season.
- S. Sanford reported to Hannah Mafunda that there are excess roof caps from this project that should be diverted for use at the Chindenga clinic build.
- Mortuary: January team left cash of \$1,660 for the repair
- Solar Panels:
 - 1. The small set of stand alone panels donated by the UM Women in 2015 have been used without batteries for the pumping of water during the day. The pump no longer operates due to apparent brush fire that has burned the wires.
 - 2. The batteries for the large set of 34 solar roof panels donated by United Nations Development Plan (UNDP) in 2018 have not been working since June, 2021. The original batteries installed were the lead acid ones, that do not last long. The hospital requests replacement of these batteries with the new Lithium batteries, which should last 7 years. The cost of new batteries for the roof panels is around US\$20,000, with no viable plan in place to replace them after 7 years. The VIM team was told that UNDP expects the Zimbabwean government to help pay for new batteries. To be discussed by TNC Executive Committee.

Vehicles.

1. TNC paid for the Land Cruiser tire replacement, costing \$1,000, in time for the vehicle to be used for the December eyeglasses clinics

2. Request for assistance in repairing other hospital vehicles, which see heavy use and damage due to rugged road conditions. No resolution reached.

SELF SUSTAINABILITY: Much discussion on this topic while the January team was at Nyadire. Suggestions made by the hospital staff include hiring/ bringing surgery specialists to the mission on a regular basis to bring patients to the hospital (come before hand for testing, etc); provision of private rooms to wealthier patients from Harare, other areas; performing lab work for other clinics/ individuals

The difficulty faced by Nyadire hospital is that it competes with the area clinics, which provide services for free, as funded by the government. As a private UM hospital, Nyadire needs to be self-sufficient but cannot charge patients/ receive payment to cover services. Based on data supplied to the January team, Nyadire hospital mostly acts as an outpatient facility, with an average of 1,050 outpatients per month vs. an average of 64 admitted patients per month.

PHARMACY:

- HIV in the country continues to rise due to increased drug usage and high unemployment, with alcohol consumption leading to unprotected sex. Stigma around seeking prophylactic meds and HIV treatments has lessened significantly.
- New surgery theater being built by GBGM.
- New pharmacy being built by UNDP. Most of the medications needed for the local 65 year+ community is for hypertension and diabetes. Additionally, the government's health focus is on treating TB, HIV and Malaria.
- Due to frequent power cuts, UNDP has provided new, "blue" refrigerators that maintain their temperatures pretty well over a three day period of power cuts. Used for storage of vaccines.
- Government provides quarterly delivery of medicines, primarily vaccines. After the government order is received, the Nydire pharmacy places its TNC-funded order with PCD.

Engineers Without Borders Drew Harvey, Christopher Kuwana

• Installation of the Biogas Digester was completed in late November by the contractor. An initial charge to start the process was obtained from an abattoir in Harare. From this point forward, the digester will be fed with cow, pig, and food waste collected throughout the mission.

- D Harvey and four EWB students traveled to Nyadire from Jan 2 13. The travel team was:
 - 1. Drew Harvey TNC program leader and EWB Cultural Mentor
 - 2. Shivank Joshi male; Mechanical Engineering class of 2023
 - 3. Shiyu Zhu (Judy) female; Engineering class of 2024
 - 4. Isaiah Lerch male; Mechanical Engineering class of 2024
 - 5. Keerthana Karthikeyan female; Chemical Engineering class of 2025
- The contractor (Blessing and Lewis) met the team at Nyadire and reviewed the installation. Overall, the contractor was excellent, including good quality brickwork on the digester itself. Several outstanding items were noted which will be completed prior to releasing the final payment. EWB retains 15% of the total and Nyadire 5% which will be paid after both are satisfied that all has been completed. Remaining items are fairly minor and completion should not be an issue:
 - 1. Additions and modifications to the operating manual including providing one in Shona
 - 2. Modification of covers at both the inlet and the discharge areas
 - 3. Correction of a concrete crack in the discharge cover
 - 4. Landscape finish work on the clean-out pit
 - 5. Securing of the gas delivery pipe into the kitchen
 - 6. Work with Christopher on design/construction of a Sadza cooker
 - 7. Clarification with Rev Mukundu on a specific tax issue.
- The contractor made a presentation to the community as to operation and maintenance of the digester. Some key points:
 - Consistency of feed is important. Nyadire should work toward a waste collection procedure that collects and feeds the same mix each day. The objective is to produce the maximum amount of biogas the digester is capable of, and Nyadire must determine the optimum feedstock
 - 2. Fresh cow waste should be collected with a minimum of dirt. This will be a challenge when cattle are contained in muddy pens. Collection should be done with a person wearing long rubber gloves, or possibly a pitchfork.
 - 3. A pressure gage mounted close to the cook stove is the key indicator of digester operation. Reading should be between 3 and 13, with the objective of staying close to 13 for maximum production. Above 13,

methane will eventually vented to the atmosphere but there is NO explosion hazard.

- Three burners are installed on a new stove located inside the dining room kitchen area. On Jan 4, we lit the stove using biogas which produced a healthy looking flame with no odor. Current Sadza Pots are oil jacketed with a rounded bottom which will require a modification of the stove for effective cooking of sadza.
- This initial installation is a pilot unit and if successful, can be replicated at many different locations both within and outside of the mission. Nyadire now has the responsibility to optimize operation and demonstrate what can be accomplished. Open tasks:
 - 1. Determine the optimum daily mix of cow, pig, and food waste that will be fed to the digester to produce the maximum amount of gas. Determine what percentage of Primary School Meals can be cooked using Biogas.
 - 2. Currently the Primary School has 3 cattle, the High School about 25, and the HOH and Teachers College have about 30 cattle each. All departments have agreed to make this waste available. The Primary School must establish a collection method and route, and possibly obtain a collection vehicle. One of the MUV's is a possibility.
 - 3. Optimize collection of the digester discharge slurry (now done with a bucket & rope) and determine where it will be used as fertilizer.
 - 4. Identify and train a specific individual accountable for optimizing digester operation.
 - 5. Develop and implement an optimized Sadza Cooker design.
 - 6. Fence the area around the digester
 - 7. Utilizing a template provided, maintain a daily log, and send monthly reports to EWB. Track the amount of firewood used as compared to the amount used prior to the introduction of biogas.
 - 8. Determine and demonstrate the justification for future installations of digesters. Financial justification, environmental benefits, labor implications, etc should all be documented.
- Kudzai Chingwe spent 3 days at Nyadire as she is developing a story on the digester project for the United Methodist News.
- Scott Sanford was to monitor and report on operation of the digester during its first week of operation, after the EWB team departed.

- The EWB team toured most of the Nyadire departments asking for suggestions of problems that could be addressed as a next EWB project. They also met with the "Nyadire Social Committee". The problem should have some amount of technical analysis required and be of a reasonable scope. Typical funds required might be in the \$10000- \$30000 range. The major problems shared by everyone were those associated with lack of electricity and water supply. The team accumulated numerous suggestions that will now be reviewed. Examples include:
 - 1. Method for disposing of waste throughout the mission, such as plastics, paper, food waste, and trash of all kinds
 - 2. Provision of additional water supply to the mission reservoirs. Possibly a solar powered borehole near the current high production borehole at the HOH which could be connected to existing supply lines to the reservoirs.
 - 3. Emergency power supplies to departments that could be used to maintain operation of critical components during electrical outages.
 - 4. Method for recycling plastics, rainwater, compostable materials.
 - 5. Implementation of a newly designed butchery at the farm, with refrigeration and a dependable power source. Business opportunity appears profitable.
 - 6. Method for continued operation of critical refrigeration units when power is lost. Select a specific example to implement
- The team met with Rev Alan Gurupira, Soloman Chiripasi, and Rev Austern Chepiri in Harare on Jan 12. Rev Gurupira expressed great interest in the Digester Project and emphasized the importance of the pilot as there are many potential application at other locations.
- CMU classes for the current term began Jan 17. With the new term, new students will be joining EWB, and a new weekly meeting time will be chosen.

2. Eveglasses Program Natalie Geer, Gashi Chikonyora

*note that this was not discussed at the January TNC meeting due to time constraints. The written report is included here from the December clinics and the January VIM team updates.

1. We held a vision clinic!! By the numbers:

	2021 (Oct. or Dec.)	2022 December
Patients served	1072	906
Number of	3	4
Days of action	13	12
Total cost/ number of	\$4825/1072 = \$4.50	4091/906 = \$4.52

Reflections from the December, 2022 clinic

- Nyahuku seemed to accommodate the team the best; following up with them to model for future clinic accommodations
- Dindi clinic's borehole was vandalized shortly before the clinic and there was no pumped water for the technician's accommodations.
- It was felt that holding the clinics over the holiday would allow the team to reach people who might be home for the holiday, however, at Nyadire, it seemed to have the opposite effect.
- All members of the clinics team attended the Christmas Day brie.
- Dr. Chris Kumora, a Zimbabwean optometrist, assisted at the Mashambanhaka clinic. Dr. Kumora wrote prescriptions for antihistamine eye drops for allergic conjunctivitis and vernal catarrh.
- Sandy was given a stack of clinic receipts while in Zim, which she will review and share with Natalie and Don Ziegler.
- BUDGET NOTES: 1. Fuel estimates based on more expensive diesel fuel for the land cruiser. 2. Team requests emergency cash to have on hand <u>Updates from the January VIM Team:</u>

A. Eyeglasses Storage

- Gashi Chikonyora has agreed to develop a plan to better store eyeglasses for protection of the glasses and perhaps utilizing shelving and bins to keep them better organized.
- *** In follow up what's app message January 24, 2023, Dr. Larry confirms that Wilson will make room in the old pharmacy shelves for eyeglasses storage.***
- Rev. Mukundu confirms that it is fair and feasible to charge patients \$5 per each pair of prescription eyeglasses, as they are very expensive (perhaps \$300 / pair) when purchased new in Zimbabwe. Could ask workers at the clinics/ Nyadire to identify those capable of paying or not and charge a sliding scale. Alternative pricing: \$3 flat fee.
- It was suggested that a nurse stationed at Nyadire Hospital be trained to conduct eye exams and distribute eyeglasses so that individuals visiting the hospital could be provided this service.

- Primrose is completing a new degree and will be moving away from Nyadire and no longer available to lead the clinics.
- New clinic leader TBD by Dr. Larry
- In a meeting with Artwell, Fadzai (both of whom worked on the December, 2022 clinic team) and Gashi Chikonyora, it was suggested that provision of/ use of a refractor would improve quality of care provided. Dr. Chirenga has also stated that the clinics would be much improved by the use of a hand-held refractor.

Processing of donated glasses at network churches

- Since November, 2021, Kathy Belcastro's eyeglasses processing team has clocked over 450 volunteer hours, processed 6670+ pairs of donated eyeglasses and made close to 1000 fleece eyeglass cases (St. Paul's Stitching Together).
- Marie Hunt and the CUMC team are processing glasses. Don Ziegler and Oakmont Presbyterian are also being trained for this purpose.
- Rural Clinic Renovation Ralph Duckworth, Austern Chepiri
- Sandy McKnight, Scott Sanford, Deborah Swineford and Leah Swineford met with Rev. Austern Chepiri, Hannah Mafunda, Livingstone Gerikai, Crenscencia Dangarembga and the Station Chair of Chindenga on January 14.
- The initial phase has been completed the exterior and some interior parts of the four-block staff housing and the out patient department building is finished. The staff housing interior still needs to be plastered and painted; and the ceiling the OPD is to be completed.
- Challenges in getting wire transfers through to the supplies provider, Halsted, resulted in temporary work stoppage.
- In order to keep the project moving forward, contractor Hama will dig the foundation of the maternity ward and locals will provide crushed gravel.
 Existing bricks at the site will be used for building and will be plastered in order to preserve them.

NOTE: Halsted payments went through after the meeting date.

Girl Empowerment Program Bonnie Lawson, Charity Horiro

Charity Horiro organized the GEP summit of outreach school teachers and Hannah Mafunda. Eveline Chikwanah, reporter for the UM Conference was also in attendance. Sandy McKnight and Charity co-led the summit.

 Due to worsening economy, the GEP is utilized even more now than before the pandemic

- Prior to the support of the GEP education and hygiene kits 75-80% of girls were missing school monthly due to menstruation. These girls now stay in school
- Needed in the schools are is a clean and private place for girls to wash if needed. Discussed the need for a change of clothing at schools.
- Soap is essential in the kits.
- Follow up required to instruct girls that pads should last at least 3-6 months; not just one month.
- Sourcing of PUL material discussed; Hannah Mafunda may be able to find source in Harare rather than importing from China
- Women brainstormed ways in which program could become self-sustaining; primarily through small projects such as raising vegetables and selling snacks; perhaps teaching sewing or making uniforms to sell.
- Bonnie Lawson continues to network and seek funding sources.

Agriculture Committee Scott Sanford

• Follow up to Scott's January VIM trip to Nyadire will be made via an in-person and Zoom meeting at Dutilh UMC on Sunday, January 29.

VIM Molly Michael, Rev. Mukundu

- Two VIM teams overlapped at Nyadire earlier this month.
- Zimbabwean elections are expected to take place in July/August 2023; so VIM Team travel through early June may be possible.
- TNC continues to look for new leader to coordinate the US side of this program
- VIM team leader training can be arranged through Molly Michael and/or Sandra Matoushaya at the Western PA conference center.