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**MOUNT ZION WELFARE ORGANIZATION, INC** (Enabling, E ( ( Water Sanitation & Hygiene. Sustainable Livelihoods. Education)



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Global Giving November 11,2015 1110 Vermont Avenue NW   
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**Sir/Madam, REDUCING THE IMPACT OF WATER BORNE DISEASES IN WATER DROUGHT VILLAGE AT KASOA IN CENTRAL GHANA**

**Organizational Background: History And Mission of MZWO:** MZWO was incorporated in 2007 with registration number G. 20965 as a rural focused and centered community grassroots organization by marginalized rural women, youth groups and Persons With Disabilities (PWDs) to promote their interests, specifically in the areas of Water, Sanitation and Hygiene, Sustainable Livelihoods and Education. G**oal: T**o make marginalized rural women, youth and PWDs subject and object of national development so that they can live productively and independently. **Management Structure:** A volunteer led, run and managed organization, there are nine independent, volunteer free board members who are credible and well educated about rural community affairs. They provide innovative approaches to finding solutions with regular feedback and transparent reporting. They have oversight of finances at all levels. Three each represent the three core areas of our activities--Water, Sanitation and Hygiene; Sustainable Livelihoods and Children Education. They serve on community boards, charities, churches, and other community service organizations. They are supported by a Vocational Director and three specialists Project Coordinators that represent each of the three separate departments. There are several other non paid volunteer field workers who provide support in each of our three areas of activities. **Financial Accountability**: MZWO meets stringent tests for fiscal transparency, accountability, governance and pragmatic impact. There is a robust financial management system handled by qualified accounts officers. There is also a yearly audit conducted by an independent audit firm while there are financial procedures in place and established policies that describes segregation of financial duties **Capacity of MZWO To Successfully Execute The Project:** MZWO staff have developed national water and health curricula, volunteered in health and nutrition service operations, provided clinical nutrition care in multiple settings, developed progressive water and health policies, implemented large scale water intervention projects with several district councils/local governments and evaluated their effectiveness. We serve as consultants in water, sanitation and hygiene education matters and also teach nutrition and hygiene in classrooms, assist schools in implementation of coordinated school water and health indices, and lead sanitation and hygiene advisory groups. Again, MZWO has history of serving on the same community workgroups and committees, collaborating on public health education projects, and working under similar missions. About a decade of collective experience strengthens our positions exponentially while maximizing our strengths and resources effectively towards a common goal of improving the water and sanitation status of the schools/community members we work with. Last year, MZWO received national recognition on our progressive water and sanitation policies passed throughout other schools in the district which acknowledge the importance that environment plays on our health and water systems. Five times winners of Excellence and Innovative Gold achievement merit award and four times winners of the Most Creative and Result Oriented NGO merit awards, in the area of water and sanitation and within our financial limits, MZWO has sunk/ rehabilitated 151 boreholes for 35 rural communities and schools ,and trained 7135 Community Peer Health Educators (CPHE) in dissemination of diseases prevention education information, all on schedule and within budget. Further, in 2011, MZWO set up a digital centre to provide a means of video interaction between field personnel and head office, and also as an instructional tool to effectively co-ordinate and monitor field activities. This will be used to enhance project result . **Project Planning:** The project was started and designed in collaboration with the Village Development Committee and the schools management to develop solutions most likely to succeed in the long term will.It emphasize the significance of people's participation, needs orientation, self-reliance, consciousness-raising, bottom-up approach to development, and empowerment of beneficiaries. Significant decisions were made with the participation of the beneficiary groups and was based on consensus with emphasis on changes in attitudes and behavior to sustainable long term change. **Description Of Beneficiaries:** Direct beneficiaries total 5740 made up of 5000 villagers and 740 students from the cluster of four schools-Kasoa Nursery, Primary and Secondary Schools whose ages range from 4 to 16 years and Kasoa Women Vocational Development Centre whose ages range from 17years to 55 years. They are predominantly peasant farmers. Current hardships in the schools and the village include mortality and morbidity rate, acute poverty, diseases, high unemployment and school absenteeism rate caused by poor health and sanitary conditions as a result of widespread water related diseases traceable to persistent use of contaminated water, which affect farmers income earning capacity and also hampers the educational advancement of the students. Consequently, their talents, skills and abilities are not optimally used. The need assessment revealed these. The poverty level stands at 81% . Indirect beneficiaries are 797 inhabitants living in two small surrounding villages who are also experiencing similar fate. They will benefit from the health education outreach and the sale of regular supply of surplus water from which the income will form part of the fundraising and sustainability plan. **Roles and** **Contributions By MZWO, Beneficiaries and Project Partners**: MZWOas the implementing organization is responsible for the successful implementation of the project, and for cooperating with other agencies working in partnership. MZWO will provide technical manpower, cash, training facilities and send evaluation reports to funder. Water Drillers ,Incwill provide water engineers and water drilling equipment. They will also be responsible for drilling the four water boreholes and connect water pipe lines to toilets and other facilities, including the schools 3-acre vegetable and fish farms. They have made substantial cash contribution to the project. Kasoa Local Government will provide volunteer Instructors in preventive health, food nutrition, and environmental education and agricultural officers for the fish and vegetable farms. They have also made some cash contribution. The beneficiary Schoolsand Kasoa semi arid villagecommunitywill be responsible for working with MZWO and project partners during planning, implementation, monitoring, evaluation and post evaluation activities. Beneficiaries have already provided land spaces for the construction of the four water wells, volunteer free services and secured location for equipment**.** They willparticipate in project development and cost-sharing**,** prepare installation site, fencing & foundations and implement environmental, health and hygiene education program.They have also made some cash donations.

**Description of Kasoa Village and the Schools:** MZWO has history of working in the four cluster of schools and Kasoa semi arid village, the poorest in the Kasoa district in central Ghana, yet the vegetable food basket of the district. MZWO successfully constructed modern toilet facilities for the community and the schools early 2015 so a structure has already been developed there. MZWO will provide drinking water and connect water and hand washing facilities to the toilets and other facilities to promote personal and environmental hygiene. It is a homogenous and harmonious community. They have effective and stable social organization and community network which makes it easy to organize and to work with them to achieve common goals. A peace loving community of about 5000 people, the semi arid farming community continue to experience increased poverty largely due to persistent water borne diseases with over 81% living below the poverty level. Decisions are taken by consensus by the Village Development Committee which is dominated by women who play decisive roles in the community especially at grassroots mobilization for developmental purposes.

The Kasoa Women Development Training Centre trains unskilled, unemployed women, mostly women heads of households, HIV/AIDS, ex-convicts and other disadvantaged groups of women and girls in vocational courses so that they can live meaningfully, productively and independently. It was established over a decade ago. The Kasoa community and the school were selected because of their high level of commitment towards the project success in terms of moral, financial and material support and their expressed desire to reverse mass poverty, hunger, diseases and unemployment. They then invited us to support their efforts

**Needs Assessment:** The prevalence of frequent water borne diseases such as dysentery, amoebic, cholera, diarrhea etc. that leads to high morbidity and mortality rates in the Kasoa village and the schools, and the high level of poverty, diseases and unemployment in the village can all be traced to lack of clean drinking water sources, the peoples very poor knowledge of personal and environmental hygiene and inadequate sanitation. Further, the cause of the poor farm yield in the schools 3 acres fish and vegetable farms which leads to poor nutritional status of the students has been traced to lack of adequate water for irrigation purposes in the semi arid community. To add, the high students and teachers absenteeism and persistent poor grades which frustrates them from achieving their life ambition has been traced to lack of clean water supply because the students spend more time in search for contaminated water than they spend on their studies. The needs assessment team reported.

The 2015 needs assessment jointly conducted by the schools and the village futher revealed that the main water sources at the Kasoa village and schools are unprotected shallow wells, (not more than six feet) streams, ponds, and rain water which are all heavily polluted at source with animals and humans wastes emptied directly into them without any treatment. Water therefore contaminate with wide variety of micro organisms and other notoriously virulent diseases that creates water borne diseases such as dysentery, amoebic, cholera etc. with intestinal worms also causing anemia and retarded growth to children. To sum up the startling statistics, the jointly owned schools and community health clinic report that 84% of reported health cases there are water borne related diseases while about 3% die untimely. Findings further revealed that the village and schools lack knowledge regarding benefits of a WASH programme and that a preventative intervention will save money, time as well as keep the students and community healthy and productive. This explains why 74% of the village population and students lack sufficient knowledge about basic hygiene, sanitation, and diseases prevention methods while about 6% of children are stunted in growth due to persistent intestinal worms infection and poor nutrition. The report adds that the overall level of access to, and appropriate use of sanitation facilities is very low, including hand washing with soaps/ashes after toilet usage and before food handling, safe water handling and storage. Further, the findings added that 30% of AIDS patients in the community suffer from chronic diarrhea and consequently die much earlier than those who have safe water. The findings revealed that about 2% of the Kasoa population have HIV/AIDS. The gloomy picture is that students education is hampered with 21% drop out rate due to constant illnesses and poverty while acute poverty, hunger, diseases, unemployment and low farm yields continue to plaque the Kasoa village farmers, a food basket in this local government.

The project will also address the problems of stigmatization, feeling of low self esteem, unworthiness, constant depression, and lack of self confidence.

The project was started on the initiative of the villagers and the schools authorities. At a forum with beneficiaries, a student quoted ‘Health, hunger, poverty reduction, education, conflict resolution, economic and community development are all significantly improved and enabled when there is safe and reliable water and sanitation, so we need water above all other needs’’. **How Will This Project Solve The WSH And Nutrition Problem?** Access to sustained water and sanitation will promote proper disposal of all waste as well as control carriers of communicable diseases, including mosquitoes, rats, mice and flies which will mitigate health risks and prevent epidemics. Further, project communities and schools will be made aware of the links between hygiene practices, poor sanitation, polluted water sources, disease and good food and nutrition. **Duplication Of Work:** The proposed replicated project fits into, and compliment government’s rural development plan and **does not** in any way duplicate other development projects on-going in marginalized, hard to reach rural areas. **How The** **Project Links Other Development Initiatives:** This project is linked with government strategy to boost environmental education, vegetable and aquatic production and to diversify grassroots income-generation for the rural poor. The vegetable and fish farming project will therefore empower and provide jobs for the unskilled, unemployed.

**Project Uniqueness:** (i) It will use high quality, low cost, locally appropriate researched technology and is anchored within the local culture and structures of the people. (ii) It will also integrate water supply, sanitation, hygiene, nutrition and environmental education .(iii) It will emphasize communities membership of planning, management, self help, and participation. (iv) The project is being replicated to solve the miseries of the villagers and students who walk several kilometers in search of highly polluted water which will eventually kill them (iv) Agreeably, the communities have long history of constant water drought especially during dry seasons.

**SCOPE OF SERVICES:** The proposed project has 5 phases:

1. Project Design 2. Project Implementation 3. Health and Sanitation Education 4. Fish and vegetable farming, and

5. Project Monitoring and Evaluation

**Project Description :** The project which started on the initiative of the schools is anchored within the local culture and structures, and also responds to Millennium Development Goals 1,4, and 6. It will focus on key issues which have proved to be most intractable within the water and sanitation sector in the communities-- hygiene and behavioral change, sustainability, reaching the poor students and villagers and ultra-poor, gender sensitivity, water technology and local and tested relevant technologies. The June 1-July 31,,2016 replicated project will aim at meeting basic human needs by providing four deep water wells, three in the Kasoa village and one in the schools to provide steady sources of clean drinking water for the villagers and the 15 buildings at the schools, including teachers residences. Fifteen, 10,000 litres water tanks and 20 faucet/tap hand washing stations will be built at strategic locations. The tanks will be built on top of block of stones so that they sit higher than the buildings . Water will be connected to the tanks through tubing buried in trenches that run from the tank to the buildings and toilets. Further, water purification tanks will be installed in order to supply safe drinking water to the villagers, students, teachers residences and two nearby communities. One of the water tanks will be located in the schools 3 acre vegetables, crops and fish farms to provide water for irrigation. Community volunteers will dig the trenches (80 cm in depth) to the buildings before construction begins. Water will also be connected to the schools and village toilets to improve sanitation**.** The project will comply with public health standards and national drinking water regulation and is structured to comply with technical, managerial, and financial capability of the village and school to maintain the water wells. It will take into consideration anticipated population growth, water safe attitudes, skills and behavior to use and enjoy the water with water user agreements available and easily accessible. The wells will be adequately protected.

**Project Goal:** (i) To reduce morbidity and mortality rate due to water-borne diseases thru provision of clean water from protected wells, reinforced by community- school-based water, sanitation and nutrition education, to unlock potentials of determined students and villagers to realize their life ambition.   
**Project Aim:** To keep the village farming community, students and staff healthy, happy and full of life by improving their health status, school enrolment, attendance and academic grades thru sustained access to sustainably enhanced sources of clean drinking water, sanitation and hygiene all year round. **Amount of Grant Request:** US$ 5000 which will be invested in direct project expenses in the construction of the four wells. **Objective 1:** Raise awareness about the project and solicit stakeholders active participation to ensure its total success before the project starts **Activity: One week** (i) **Project set up:** Announce project (awareness raising), discuss program with stakeholders and orientation, select qualified volunteers and training, formation of Community Peer Health Educators, assess financial requirements, develop roles and responsibilities of stakeholders and volunteers, *identify training needs and objectives etc* **Approach:** Thru capacity building , MZWO and project team will reach target groups by working with community and schools to develop their own organizational structures, development initiatives and inclusiveness with local Community Based Organizations (CBOs) and partner organizations. The community development approach will emphasize the significance of people's participation, needs orientation, self-reliance, consciousness-raising, bottom-up approach to development, and empowerment of both women and men**.**

**Output: (i)** Signing of memorandum of Understanding by all stakeholders (ii) Flyers developed and disseminated to 3 community agencies and other stakeholders (iii) Relevant training methods selected, (iv) 3 meetings held with community agencies staff and other stakeholders (v) Needs assessment report available, including training needs and monitoring plans. **Objective 2:** Provide four deep water wells, ensure that clean drinking water is available for **all** within 5 minutes walk to save valuable time and to reduce water borne diseases by at least 95% after the project period. **Borehole water activities at the village and schools 6 weeks:** (i) Selection of water engineers and volunteers and orientation, geographical survey of borehole sites and soil tests, prepare engineering designs (ii) Borehole drilling of four deep water wells and installation of hand pumps and filtration Systems (iii) ) Small piped water schemes fed by bore holes and connected to toilets and other schools and village facilities (vi)Training of Water Management Committee on water management and water technicians on boreholes, pumps, and platforms maintenance (vii) Supervision, monitoring and evaluation **Approach:** This phase of the project will be implemented in partnership with our traditional partner, Water Drillers, Inc. who will provide their water engineers to work with MZWO’s water and sanitation technicians in the construction of the water wells, the laying of pipelines to be connected to water reservoirs. The project Cpoordinator will coordinate activities. The community development approach will emphasize the significance of capacity building and women participation, development, and empowerment of all, both women and men inclusive. **Outputs:** (i) Four deep water wells provided (ii) 15 local water wells maintenance technicians trained (iii) Five workshops held for water technicians and Water Management Committee. (iv) Improved capacity, accountability and responsiveness to management of water, sanitation and hygiene (vi) Increased awareness of why and how best to use water to prevent contamination.

**Objective 3:** (i) Integrate Hygiene education into the schools curriculum to sustain it, then train CPHE and selected teachers to teach the curriculum using participatory methods to induce safe hygienic behavior to reduce water borne diseases by at least 95% by the end of the project period . **Activities at Kasoa village and the schools 2 weeks:(**i) Baseline survey, materials procurement and training of teachers, students and CPHE (ii) Implement awareness and social mobilization campaign (iii) Implement participatory hygiene education and hygiene promotion (iii) Implement training, education and community outreach activities with the schools and community (iv) Assist students and CPHE to access information from various sources in matters of water, health, sanitation, fish and vegetable farming and environmental management.vi) Create culturally accepted promotional materials (vii) Facilitate communication among CPHE, students, health educators and teachers choosing culturally accepted mediums, methods and materials, then draw targets and target dates to fulfill project objectives (viii) Develop indicators to monitor project implementation (ix ) Monitoring and Evaluation. **The** four Components of the health Programme will be conducted in the village and schools: (i) Basic Heath Instruction: Students and CPHE will learn specific health facts and ideas to understand them and the ideas behind them. (ii) Good health practiced around the Schools and the village: This will involve planning to make the schools and village safe and healthy places with clean environment and good children nutition (iii) CPHE and community will participate in schools health promotion and the transfer of knowledge from schools to communities and vice versa using student-to student approaches . (iv) Schools-Village Health Services:This involve establishing the closest possible links with health workers so that together they can take action to prevent ill health and unhappiness in students,children and their families, help to monitor the health(including hygiene and nutrition) of children and students and the schools as a whole **Approach:** Working thru the internet from project location (and also using face to face instructions during practical demonstration exercises especially during fish and vegetable farming classes,) the internet site of MZWO will be enriched with an interactive section to enable a wider audience to receive health promotio instructions. The project will build the capacity of teachers, students and Community Peer Health Educators (CPHE) around issues like drinking water, sanitation, food nutrition, preventive health education, including water borne diseases, environmental management, fish and vegetable farming and raise their awareness of the severe threats they pose to humanity if abused. The project will track behavioural changes while it has identified four most critical behavioral practices to be changed: These are hand washing with soap, ash, or other aid before food preparation and after dealing with faces; latrine use and safe disposal of children faces; safe weaning food preparation and children nutrition; and safe water handling and storage. Cleanliness behaviors such as hand washing before meals and after using the toilet, using dish drying racks, and covering safe water containers will all be emphasized. To sustain it, the project will integrate these subjects into the schools curriculum in core subjects like Math, English, Reading etc to promote behavioral change which will involve working closely with the villagers, students and teachers by studying existing beliefs, defining motivation strategies, designing appropriate communication tools and finally encourage practical steps towards positive practices. Culturally accepted creative and innovative mediums like music, art, poetry, drama etc will all be used. Special attention will be given to building on local knowledge and promoting existing positive traditional practices. Volunteer Instructors from the Public Health Education Unit of Kaso Local government will implement a successful pilot-tested peer education preventive health education model using participatory methods and taking into consideration local cultural beliefs, practices and customs. MZWO will use approved local government curriculum which was developed using years of field experience, feedback, and knowledge of local practices will be used. **Output:** (i) Increased awareness of, and action on, health and environmental issues related to water, hygiene and sanitation (ii) Increase knowledge and awareness of why and how best to use water and sanitation for public health and environmental sustainability (iii) Train students, staff and peer health educators in participatory planning (viii) Develop school and village WASH action plan.(ix)10 workshop session series held, (x) Water connected to vegetable and fish farms to increase food production (xi) Water Management Committee formed.  **Project Impact:**  **(i) Education:** (a) Increase in school enrolment and attendance for both teachers and students (b) Teachers will accept postings to the schools more readily, (c) Students absenteeism and drop out rates drastically reduced (d) Improvement in punctuality to classes (e) Students attend school in clean uniform (f) Hours spent on school-related activities increased by 3 hours/day (h) Students have enough time to study to improve grades **(ii) Economic: (a)** Livelihood of the community and incomes of household members improved(b Saved income used for economic and home uses (d) Introduction of off farm activities (e) Teachers/students increase vegetable production for school feeding program and sale of surplus production using available water (f) Boost schools income through aggravated savings on medical bills and preserve the environment (g) Queuing time for water, and distance to fetch water all significantly reduced **(iii) Health**: (a) Significant reduction of water related diseases and mortality rates (b) increased level of cleanliness of students and condition of school uniforms (c) improved refuse disposal. (d) Improved household cleanliness and women’s health (e) Reduced incidence of skin diseases (f) Improved hygiene of women, including menstrual (g) Eye diseases reduced due to cleaner environment **(iv) Psychological**:(a)Reduced tension at the home and school front (b) Observance of religious rites (c) Increased students and villagers self-respect and improved self-esteem. (e) Improved status of having piped water **(v)** Environmental: Reduced water and environmental pollution, including open defecation **Project Outcomes:** (i) Improved health and increased job and income resulting from increased knowledge of the causes and treatment of water-borne diseases (ii) Improved use of quality and affordable water and sanitation; (iii) Greater equity in allocation of water and sanitation (iv) Reduced cases of waterborne disease incidences in the target communities while children are sensitized on key hygiene messages and support for hygienic behavior change (iv) The community and schools’ clinic will all be equipped with appropriate sanitation facilities, (v) All services will be provided through facilities and services which are cost effective,appropriate and sustainable and are part of a sustained rural program (vi) Increased consumption of treated water at the schools and household level **Milestones** *(i)Mobilization,* (ii) check site selection (iii) termination of drilling (iv) lining of the boreholes (v) boreholes development (vi) pumping test (vii) platform construction and pump installation (viii) Prepare literature reviews on water and other diseases prevention, including environmental, nutrition education and vegetable and fish farming (ix) workshop presentation to Community Peer Health Educators, teachers and students on preventive health and environmental education (x) Vegetable and fish farming education **Success Indicators**: MZWO will consider the program successful from the health and development standpoint if : (i) water, sanitation and hygiene services are sustainable beyond at least a decade (ii) All participating schools have sanitation facilities and hand washing facilities that are hygienically managed and sustained (iii) At least 75% improvement in hand washing practices is demonstrated within a month after project handover (iv) Diarrhea rates are measurably reduced by at least 95% at the schools and village community level through improved sanitation and hygiene, thus improving the villagers and students’ health condition, (v) Students and villagers latrines are hygienically managed and the practice of open defecation has been completely eliminated (vii) Clean water is easily accessible within 5 minutes walk (vii) MZWO expand the initiative to other similar rural institutions and village communities. **Dissemination of Project Results:** (i) Electronic mailing lists, the worldwide web, printed publications and seminars **Monitoring and Evaluation :**. Project monitoring and evaluation will be guided first and foremost by listening to beneficiaries. Evaluation will focus on project objectives, training efficiency and efficacy, training materials and trainers performance, delivery methods, overall satisfaction, beneficiaries performance, feedbacks etc The impact of the project will be evident through a comparison of pre- and post-project indicators, concerning the availability of potable water and health clinic records. Evaluate project objectives eg number of students and villagers served, depth of boreholes, diameter of the casing, type of casting and water pumps used, physical observations, measurement of breadth and depth of water wells, laboratory services etc. Sources of information will include water engineer’s diary, monitoring team’s records, questionnaires etc For preventive health education, questionnaires, professional observation of health conditions of the students and villagers, questions and answers sessions, self administered check lists, longitudinal studies, medical diagnostics by health professionals will all be employed to assess students and villagers health status. Also, relevance and effectiveness of training materials, assessment of effectiveness of instructors delivery methods, and assessment of participants understanding of instructions, overall impression and effectiveness of the training program etc For financial evaluation, MZWO will establish budget, track finances and investigate variances, if any. All transactions can only be authorized by designated officers, including timeliness of payments, daily verification of financial books and yearly auditing and reporting to funders **Sustainability Of The Project:** Financial: (i) Schools and village community will initiate tree seedlings nurseries for sale using available water to generate income, and also to preserve their arid farm lands (iii) Monthly schools-village community fund raising activities (iii) Sale of surplus water to nearby water drought communities to generate income (iv) Simple systems which uses quality and tested, indigenous, local technology and materials and equipment that require minimal financial cost in servicing to be managed by Schools-Villagers Water Development Committee (S-VWDC) with spare parts readily and locally available. (iii) Effective management of financial and other resources beyond the project period thru networks that support schools, communities and households Non Financial:(i) Involve all stakeholders irrespective of gender and social status, including water wells technicians and strengthen their manpower capacities to participate in all stages of the project , and then after (ii) Build manpower capacity of local water technicians and S-VWDC in maintenance and management of water pipes, wells and other sanitation facilities.(iii) Conduct post-implementation studies that monitor functionality and the use of facilities (iv) Environmental sustainability- Avoid negative effects on natu­ral resources and on the broader environment **Conclusion:** MZWO has satisfied the basic conditions for project implementation viz wild consultation with all stakeholders with broad, consensus by all, and a high level of commitment from all as demonstrated by massive contributions made by all stakeholders ad we need your support to transform dreams into reality.

.Sincerely,

KOW E. ODOOM VOCATIONAL DIRECTOR

**Reducing The Impact Of Water Borne Diseases In Water Drought Communities Thru Wash Activities**

**Needs Assessment: Research findings by beneficiaries at Kasoa village and Kasoa Women Vocational Centre in central Ghana confirm that contaminated water caused 84% of health problems eg diarrhea, dysentery, cholera etc while about 74% of the community and students lack personal and environmental hygiene, sanitation, and diseases prevention methods. The only water sources in the community and school are shallow wells, streams, ponds and rain water which are all heavily polluted at source. Project will provide clean water and sustained hygiene education. Project Aim: To keep the students and the community members healthy, happy and full of life by providing clean drinking water and sustained environmental, sanitation and hygiene education to improve school enrolment, attendance, grades and improved standard of living of beneficiaries. Amount of Grant Request: US$ 5,000 to be invested in the construction of the three water wells. Beneficiaries: About 5000 villagers at Kasoa and 740 students at Kasoa Women Vocational Training Centre who lack access to clean water sources, sanitation and hygiene facilities and are in poor health Project Objective 1:Raise awareness about the project, then provide three deep water wells to provide clean and safe water to Kasoa village and the school in order to reduce water borne diseases by at least 95% after the project period Activities: Seven weeks at Kasoa Village and the School: (i)Project set up, establish project team, steering committee, select participants and training , needs assessment (ii) Prepare engineering designs, survey boreholes sites (iii) Borehole drilling and installation of hand/rope pumps (iv) Construction of filtration system (v)Training of Water management Team, technicians (vi) Monitoring and Evaluation Outputs: (i) Sign memorandum of understanding with stakeholders, hold 7 meetings, select training methods, provide three deep water wells (ii) Train 15 borehole technicians and Water Management Committee (vii) Increased public and private investment in the village (viii) Monitoring and evaluation with targets dates (vii) Project closing, handover. Strategy & Manpower: Thru capacity building, awareness raising and community development approach MZWO will emphasize women participation, development, and empowerment of both women and men to reach target groups Objectives 2: (i) Develop educational programmes on water related diseases, Sanitation, Hygiene and environmental education, then deliver the training using participatory, hand-on training, to reduce water borne diseases by at least 95% by the end of the project period. Activities at Kasoa Village and the school 2 Weeks (i) Workshop training to assist villagers and students to access information in matters of water, health, nutrition, fish and vegetable farming. (ii) Facilitate communication among stakeholders eg communities, school, water distributors, health and environmental authorities, NGOs etc. (v) Draw targets and target dates to achieve project objectives (vi) Monitoring and evaluation. Output :Increased awareness and understanding of diseases prevention related issues (ii) Distribute educational materials to communities and school (iii) Train teachers, communities and adapt hygiene promotion .(iv) Inaugurate and train WASH committees in participatory planning . (v) Develop village-school WASH action plan (vi) Connect water to school vegetable and fish farms Methodology: Working thru the internet and Thru participatory, hands-on-training and awareness raising, project will organize villagers and work on behavioral changes in hand washing with soap, ash, or other aid before food preparation and after dealing with faces; latrine use and safe disposal of children faces; safe weaning food preparation; safe water handling and storage and, positive environmental relationship. Project team will work closely with community and school to study existing beliefs, define motivation strategies, design appropriate communication tools and finally encourage practical steps towards positive practices. Project Outcomes: (i) Improved use of quality water and sanitation; (ii) Easily accessible water and sanitation facilities (iii) Increased capacity for project partners in participatory training methods (iv) Decrease in environmental abuse, poor sanitation, water-borne diseases (v) Improved living standard (vi) WASH policy eduction favoured Practical Impact: (i) Education: (a) Increase in school enrolment and attendance for both teachers and students (b) Teachers will accept postings to the school more readily, (c) Students absenteeism / drop out rates reduced (d) Improvement in punctuality to classes (e) Students attend school in clean uniform (f) Encourage students to use their experience as change agents to identify and apply more local solutions to water problems (g) Time spent on school-related activities increased by 3 hours/day (h) Students have enough time for studying to improve grades (i) Parents acquire new ideas and practices (ii) Economic: (a) Livelihood of the community and incomes of household improved (b) Improved output in fish and vegetable production (c) Saved income used for economic and home uses (d) Introduction of off farm activities (e) School increase vegetable and fish production for school feeding program and sale of surplus production using available water (ii) Boost schools income through aggravated savings on medical bills and preserve the environment (ii) Health: (a) Significant reduction of water related diseases and mortality rates (b) increased level of cleanliness of students and villagers (c) improved refuse disposal. (d) Improved household cleanliness and women’s health (e) Reduced incidence of skin diseases (f) Improved hygiene of women, including menstrual Eye diseases reduced due to cleaner environment Monitoring and Evaluation : Using MIS and baseline information , beneficiaries will evaluate number of people served, depth of boreholes, diameter of the casing, type of casting and water/rope pumps used, number of people wells will serve etc For preventive health, use medical diagnostics to assess communities and students health etc. Sustainability : Project will use local materials and technology that require minimal servicing (ii) Build manpower capacity of local volunteers in water wells maintenance and in financial management (iii) Sell tree seedlings nurseries to generate incomes . (iv) Sale of surplus water to raise income (iv Monthly fund raising activities**

**WASH Project** **Budget June -July, 2016 At Kasoa in Central Ghana**

**US$**

Needs assessment -- transportation, stationery, internet facilities 500

Materials for the 4 wells , including sanitation facilities 8000

Transport of volunteers to and from project sites and Carriage of materials to project sites including drillers 300

Diesel & Lubricants to be used in drilling equipment etc 540

Accommodation and meals for 2 consultants for 1 month 1000

Breakfast and lunch for 10 volunteers (10 volunteers x 40 days x $3/day 1200

Water storage tanks-- 15, 10,000 litres water storage tanks US$ 100 each 1500

Projector hire for 10 days @ US$ 5/day 50

Workshops Training materials 2185

Website development for internet training on health, nutrition etc promotion 600

Training of 5 Water Management Committee members and 10 rope pump mechanics 1000

8 Ropepumps @ $200 each 1600

Monitoring and Evaluation 1000

Dissemination of project results- internet, workshops etc to target audience 1500

**TOTAL PROJECT BUDGET** 20,975

Less Underwritten By MZWO, beneficiaries and partners 15975

PROJECT BUDGET DUE FROM SPONSORS 5000

BUDGET NARRATION FOR THE EIGHT WEEKS PROJECT PERIOD

**Workshops Training Materials US$ 2185***: This*  include secretarial services, workshop materials such as preventive health education materials, workbooks, photocopying and binding, modern methods of vegetable and fish farming for the school and household to increase production.

US$ 295 copies of health education manuals and modern methods of fish and vegetable farming for each household, including photocopying, binding etc @ US$ 3 each 885 Programme announcement :Posters, handbills, radio announcement 200 Drama-Costumes and music composition, art, poetry 1000 Stationery items for participants-biros, exercise books, file folders etc 100

**Transport and Carriage – Total: US$ 200**

Staff and volunteers are expected to travel around project sites, the school and attend meetings, meet with project partners, visit school management, carriage of water drilling equipment, post project visits, etc.

**Materials for the 4 wells** @ US$ 2000 each per well US$ 8000. Water pipelines, mixing sand, water taps and accessories, 12 mm iron bars, diesel, petrol used in drilling equipment for each of the 2 water wells, portland cement, planks, gravels, sanitation facilities, sanitation facilities, including hand washing facilities etc

Rope pump mechanics are trained to produce, install and maintain these pumps, pipelines and the water wells

**Water Storage Tanks:** These will be located at strategic locations for easy reach and accessibility in the schools and neighboring water draught communities for sale

.

**Hire of projector US$ 50**

The project will rent a multi media projector for all components of the training-water, sanitation, hygiene and vegetable farming, water technicians etc at US$ 5 per day for the 10 days.

**Monitoring, Evaluation US$ 1000** This will include stationery, printing materials, telephone etc

**Dissemination of Project results US$ 1500:**  workshop , e-mails and direct mails to targeted audience, etc

**WORK PLAN FOR WATER,SANITATION AND HYGIENE PROJECT**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DESCRIPTION** | **JANUARY-FEBRUARY 2016**  **WEEKS** | | | | | | | | | |
| **ACTIVITIES** | **11** | **22**  **2** | **33**  **3** | **44**  **4** | **55**  **5** | **66**  **6** | **77**  **7** | **8**  **8** |  |  |
| **Project Set Up: Organize village fora, mobilization and sensitization of community, Set up steering committee to co-ordinate activities, needs assessment, selection of trainers and participants, identify training needs, indicators etc . Conduct SWOT Analysis**: (strengths, weaknesses, opportunities and threats) to explore the internal strengths and weaknesses of the community’s water resources and services, as well as external opportunities and threats facing the project communities | **XX** | **X** |  |  |  |  |  |  |  |  |
| **Training of water wells maintenance technicians and Water Management Committee members in water, financial management and investment strategies** | **XX** | **X** | **X** | **X** | **X** |  | **X** |  |  |  |
| **Prepare engineering design, drilling, lining, pump installation, pump testing, water quality analysis and monitoring and evaluation integrated into activities** |  | **X** | **XX** | **XX** | **XX** | **XX** | **XX** | **X** |  |  |
| **Workshops and outreach: Training of teachers, Community Peer Health Educators, family representatives, social clubs etc in preventive health, environmental and nutrition education and integrated same into the school’s curriculum. Monitoring and evaluation integrated into activities** |  |  | **X** | **X** | **x**  **X**  **X** | **x**  **X** | **XX**  **X** | **x**  **Xx**  **X** | **X** |  |
| **Complete documentation, demobilization, closing of project and handover** |  |  |  |  |  | **X** |  | **X** | **X** |  |
|  | **x** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |
|  |  |  |  |  |  |  |  |  | **X** |  |

BOREHOLE CONSTRUCTION WORKFLOW

|  |  |  |
| --- | --- | --- |
| **Steps in borehole construction**  1 Inspection | **Driller’s responsibilities**  Assemble equipment and personnel for inspection | **Supervisor’s responsibilities**  Inspect equipment and interview personnel |
| 2 Siting | Hydrological survey, geophysical survey, submit report | Check equipment, provide guidance on siting borehole, approve siting report |
| 3 Pre-Mobilisation Meeting | Raise specific questions regarding the contract requirements | Together with beneficiary communities, thoroughly discuss the design, materials and procedures for each step of the project |
| 4 Mobilisation | Submit programme of work, submit samples of materials, move equipment to sites | Laise with the communities, approve drilling equipment and materials, guide driller to sites with the communities |
| 5 Drilling | Position and operate the rig; collect samples, report | Monitor drilling, advise depth to stop drilling, log the borehole |
| 6 On-sites design modifications | Install casing and screen, gravel pack, sanitary seal, report | Instruct screening and casing depth, ensure gravel pack and sanitary seal properly placed |
| 7 Borehole development and sites completion | Develop the hole, undertake test pumping, collect water sample, disinfect the hole | Ensure water is clean, proper disinfection, supervise pumping test, ensure samples are taken and platform installed |
| 8 Demobilisation | Remove all equipment and rubbish from sites, report | Ensure the sites are restored to their former state |
| 9 Complete documentation and handover to communities | Submit all records. Hand over | Handover bore to communities. Report |
|  |  |  |
|  |  |  |

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