Concept Memo

Name of Volunteer: Ross Fischer Date:31/07/2019

Site: Namajani, Mtwara Circle one: **Education**

COS date: September, 2020

Summary of Proposed Grant

Please briefly address the following questions:

1. What problems or needs will the proposed project address? Why is this project important?

   It is widely known in the Tanzanian education community there are more arts teachers than science teachers. It is not unheard of that a school is missing a teacher for any particular science subject. This shortage of science teachers often leads to period overload for those who do teach. Furthermore, this shortage is self-perpetuating since it hinders students from continuing their science studies and potentially becoming science teachers in the future. Additionally, this challenges teachers who want to perform demonstrations or experiments since these activities take a long amount of time to plan and implement. Lastly, a majority of students who do continue in science tracks are male. This has detrimental implications if the majority of society's designers and problem solvers have an unconscious gender-bias. This project is important because it creates a unique opportunity to motivate a gender-inclusive group of students from schools around the Mtwara region, which is known to have poor academic performance.

2. What solutions are you proposing to address those problems/needs?

   The proposed 2020 Ndanda Science Conference will bring together 5 schools in the Mtwara region. Each school will send 8 students, 1 counterpart, and the volunteer at that school to attend and lead science related sessions and demonstrations. The conference will have many benefits for those who will attend. Primarily, the conference will serve to encourage students to study and be excited about science. The planned tours will provide valuable first-hand experience to see science in the real world and think about career ambitions. The conference will take advantage of the preceding-time to plan and implement demonstrations and hands-on activities which often are left unperformed in classrooms. This offers benefits to 5 counterparts, too, to see the conference planning process and more real-world applications of the studies they teach. The conference will be gender balanced, uplifting many females who may otherwise be left behind in science tracks.

3. Who will be the beneficiaries of your project?

   The 40 young women and men attending the conference will be the primary

beneficiaries of the project. They will gain a unique collection of science and career concentrated sessions that will empower them in their respective schools and communities. This is equally true of the 5 counterparts who will return home with a better understanding of project planning and leading, and real-world experiences to incorporate into their teachings.

4. What project outcomes do you anticipate?

The 2020 Ndanda Science Conference will bring together 40 students from different rural areas of the Mtwara Region. Many students from these schools are eager for opportunities to succeed and show their potential, but lack of the contacts, institutions, and money to make this happen. This conference will provide a unique peer-networking opportunity to the students and counterparts. The students will have an increased interest in math and science subjects. The tours will expose the students to career options and real world applications of the subjects they attend at school. Demonstrations and experiments will excite the students with hands on experience, while additional sessions (like time management activities, HIV/AIDS lessons, and personality tests) will educate the students about relevant science related life skills.

Ndanda is a very unique town in Mtwara region. It was expanded by German missionaries a long time ago, and still continues to receive German support today. Ndanda has amenities that many of the young men have never been exposed to (like hydroelectric generators, a water-bottling factory, and a printing press. Ndanda hospital is one of the best hospitals in Mtwara region. By shadowing staff at Ndanda Hospital the students counterparts will see real job opportunities outside of their villages yet still in their region. We will focus on goal setting and forward-thinking so that the young men can begin thinking about life beyond secondary school.

An important session that will be included will be about reproductive health, HIV/AIDS, STDs, and sexual behaviour change. The students will understand the relevant science and dangers associated with risky sexual behaviour, as well as their own sexual and physical development. This is important for youth in the Mtwara region, where sexual health conversations are often taboo and where many youth have early sexual debuts. The session will focus on delaying sexual activity and practising safe sex, and include a condom demonstration. By understanding their own development and the risks around them, these youth will make more informed decisions regarding their own sexual health.

The students and counterparts will be exposed to non-traditional Peace Corps volunteer-led education beyond what the Tanzanian educational system offers. The counterparts will be able to use this form of teaching in the community at large and the young men will be able to take control of their own education by using critical thinking and peer education. These styles are not often implemented in classrooms in Tanzania. The students will also be able to use hands-on learning and these new learning styles can help them in their studies back in their communities.

The students will lead informal presentations upon returning to their village which they will prepare on the last day of the conference in Ndanda. These youth, with the help of counterparts and volunteers, will prepare science-based demonstrations and lectures in order to share their knowledge with their secondary schools in the week following the conference. The students and counterparts will be presented with certificates acknowledging their work at the conference in front of their secondary schools.

5. Who will oversee the implementation of the project? Who will be the project committee members?

Transport will be organized by each school's respective volunteer and counterpart in order to ensure student safety. The conference timetable will primarily be organized by Ross Fischer and his counterpart, Paschal Elias. The counterparts will lead most of the sessions with support from the volunteers. Certain sessions will prioritize the volunteers involvement, particularly those that include content that counterparts have not taught or experienced. Sessions will be focused on preparation for tests and practicals, critical thinking, goal and priority development, and developing a healthy attitude towards science subjects. Special contacts in Ndanda will be responsible for supplying food (Hussein at the hospital canteen) and leading tours (Father Alfonso oversees nearly all activities in Ndanda). The project committee members are Ross Fischer, Paschal Elias, Amina Johari, ____, Melissa and Nisile .

6. Who will follow up with the project implementation? Who will measure the impacts of the project (M&E)?

Five counterparts and 5 Peace Corps volunteers will oversee and facilitate the conference events, each leading sessions with the boys. Each volunteer will be assigned a selection of topics/demonstrations to plan and present with their counterpart. Attendance will be taken at each session by a committee member. The students will take a pre and post-conference assessment to qualify the results of the conference. Students will be encouraged to ask questions and participate in sessions. In the week following the conference, the 40 young men and their counterparts will have chosen a topic from the conference to be presented to their fellow students. Volunteers and counterparts will present information from the conference to the staff of their secondary schools.

7. What will the approximate implementation timeline be?

04 February 2019: Submit Concept Memo, Draft a Schedule, Schedule visit to Ndanda locales
10 August 2019: Primary visit to Conference Center about visit, lodging, food. Talk to Hospital, Springs, Factory, and VETA about tours.
23 August 2019: Submit Grant
18 January 2020: Visit Ndanda to confirm lodging, food, tours.
29, 30, 31, 1, 2 of Jan/Feb 2020: Ndanda Science 2020 and Travel Days
Wed, **12 February 2020:** Travel to Ndanda, check-in, intro, have dinner, watch movie
Thu, **13 February 2020:** Morning at springs/hydroelectricity, afternoon goal setting, evening demonstration/practical
Fri, **14 February 2020:** Morning at hospital and VETA, afternoon HIV/AIDS, demonstration/practical
Sat, **15 February 2020:** Morning at bottling factory, afternoon test prep, myers briggs, evening demonstration/practical
Sun, **16 February 2020:** Return home

8. How does the community plan to sustain the project after your departure?

   Following Ndanda Science 2020, the students and counterparts will return to their schools with an increased interest in science. They will be looked to as role models by their peers and encourage better performance in school. The students will carry this experience throughout school and after graduating and hopefully use it to push them to learn and experience more of the natural world. The career and job potential they will have been exposed to will motivate them to excel in school and continue their studies. The long-term goal is that, after returning to school, the students will excel and graduate form 4 and pursue more education or a career. Additionally, the counterparts attending these trainings may implement the sessions and practicals in future periods and teach about the tours informedly.

9. What is the approximate total project cost?

   Total: 7,000,000

10. What items and services will the community contribute and what will the approximate amount be (at least 25% of the total budget)?

    The community contribution will be 25% of the total budget. This will be accomplished by using donated teaching supplies, reductions or eliminations in the cost of: conference space, student lodging, counterpart time, tours, and cooking.

11. What funding source do you think will fit your project?

    VAST

For staff use:

APCD Signature Date

Grant Coordination Signature Date

Suggested Funding Source:

- SPA
- VAST
- PCPP

Grant Coordinator Feedback: