PROPOSAL FOR AN INTERNATIONAL PARTHERSHIP AND GLOBAL GRANT

ROTARY CLUB OF TAGUATINGA, BRAZIL AND DISTRICT 7070 CLUB(S)

Project: Water, Environment and Health: Reducing the health impacts of the open dump in Brasilia

Type of the project: WATER & SANITATION; DISEASE PREVENTION & TREATMENT; MATERNAL & CHILD HEALTH

The host sponsor: Rotary Club of Taguatinga, Brasília, Brazil

Project overview and Background

This project relates to one part of a multidisciplinary extension program of the University of Brasilia, Brazil, supported by the Rotary Club of Taguatinga, Brasília since 2007. The full program is designed to assess and address health, social and economic issues for waste-pickers and their families at the Estrutural Garbage Dump near Brasilia, the largest dump in Latin America.

The project covers areas including Water Surveillance, Environmental Health Education, Occupational Health, Environmental monitoring, Epidemiology, Social inclusion, all related to solid waste management.

Main objectives of this proposal

- evaluate and characterize the environment with an emphasis on the drinking water quality and assess the sanitary infrastructure of the City of Estrutural located in Brasilia. Building on these findings, a more thorough Community Needs Assessment will be conducted to set the stage for the project complementation;
- reduce the levels of waterborne diseases, the water quality results and to propose sanitary infrastructure interventions to the local government;
- systemize the data to identify the impacts of the open dump on water quality and subsidize the decision-making concerns regarding the solutions addressed for Sustainable Development Goal 6 - SDG 6- Clean Water and sanitation of Agenda 2030;
- empower the waste-pickers and their families about health and provide environmental education on sanitation responsibilities, such as: food hygiene and water storage for clean drinking water, therefore strengthening the local community's participation.

Where and when the project will take place

Location of study and characterization of the population: The open-air landfill site was closed in January 2018 after 60 years and it was the largest in Latin America and the second-largest in the world, after Jakarta, Indonesia. The area of the Estrutural Garbage Dump covers 201 ha, equivalent to 280 soccer fields, and received the solid waste produced in the Federal District – totaling 40 million tons of waste over the period of its existence. It is located 15 km from the center of Brasília, the capital of Brazil, close to the Brazilian National Park (a conservation area) and the Cabeceira do Valo River, along with small producers of vegetables and fruits.

Currently, the city of Estrutural (a city which arose due to the settlement of individuals working in the handling or collection of solid wastes) has an estimated population of 35,801 inhabitants, and has the lowest Human Development Index in Brasília, Federal District. The "Estrutural" city and its surroundings contain precarious dwellings inhabited by recyclable material collectors and homeless, constituting a place of great environmental degradation, has precarious system of treated water supply and collection and treatment of sewage and in some areas, constitutes an invasion with irregular housing and without any basic sanitation, with water supply from cisterns subject to contamination, living with poor home water storage conditions.

Project Coordinator: Professor Vanessa Cruvinel PhD, University of Brasilia, email:: vanessarcruvinel@gmail.com - tel in Canada until December 31, 2018 - 647-975-5376.

Contact at Rotary Club of Taguatinga, Brasília, Brazil – District 4530 – Chair of Rotary Foundation 2018/19: Rogerio Cruvinel, email:: racruvinel@gmail.com - tel in Canada until December 31, 2018 - 647-867-5376.

Join us to help these people and to protect the environment!

Project - additional information

Who will benefit by this project:
These actions focus on protecting the people who are particularly vulnerable to waterborne diseases, especially the residents and collectors of recyclable solid waste who live near the area of the open dump.

Which areas of focus will this project support:
Water and Sanitation, Disease Prevention & Treatment and Maternal & Child Health.

Which project goals will be the area of focus:
Supporting programs that enhance the community's awareness of the benefits of safe water, sanitation and hygiene; Supporting studies for career-minded professionals related to water and sanitation

How the project's impact will be measured:
A set of percformance indicators will be developed for monitoring the progress of the project in reducing the incidence of notifiable diseases (Sinan) in Brazil and decreasing of prevalence and incidence of waterborne diseases in the community of this area. The performance indicator framework will augment the existing information system for public health in the area.

DESCRIPTION OF THE COSTS:	
Consumer materials	R$ 135.007,17
Transportation	R$ 6.480,00
Permanent material and equipment	R$ 160.635,69
Contract services	R$ 30.560,00
Total (Brazilian Real)	R$ 332.682,86
American Dollar	U$ 89.191,12

Need and Sustainability

•In 2017, the team of this project conducted an epidemiological survey about the health conditions of the 1063 waste-pickers who worked in the largest open dump in the Latin America and identified a high prevalence of waterborne diseases in these workers including dengue, zika, chikungunya (28.60%), diarrhea (24.09%), worms (11.74%), hepatitis A (1.67%) and leptospirosis (0.68%). All the cases were referred to primary care at the Federal District State Office of Health (Secretaria de Estado de Saúde do Distrito Federal - SES/DF) to be treated according to their needs. Besides that, the city of Estrutural in Brasilia presented the largest number of cases of dengue and other waterborne diseases by inhabitants according to the Compulsory Notification Aggravation Information System (SINAN). Before the survey, the waste-pickers were interviewed about their needs and the answers were registered in an on-line questionnaire, so we could identify their priorities. Besides that, the members of the local community are involved in the planning of this project.

•After the conclusion of the analysis of water quality, and the health and sanitary education, it will be possible to encourage the inhabitants about the importance of good habits in relation to filter and water storage. These actions will help local governors and health councils to recognize the social and health determinants involved in this process and use data and information to promote public health interventions, ensuring the provision of safe drinking water and adequate sanitation for all by linking both water and sanitary issues.

•It will contribute to empower the waste-pickers, their families and the community to understand the risks they are exposed to, and how to change their habits in relation to filtering water and how to properly store it. The community leaders will continue as local multipliers to detect and report about current sanitation, health, and environment problems of this location. Finally, the project will ensure availability and sustainable management of safe water and sanitation for all. The team hopes that it will support reproducibility projects in open dumps around the world and help other vulnerable communities.