

Rotary District 5040-2022 Conference Water, Sanitation and Hygiene

We support local solutions to bring clean water, sanitation, and hygiene to more people every day. We don't just build wells and walk away. We share our expertise with community leaders and educators to make sure our projects succeed long-term.

Our panel focuses on excellent examples of District 5040 club projects and looks to new research and technologies being developed right here at UNBC.

Hippo Rollers



Easier access to water is essential for health and hygiene, growing vegetables, creating food security, more productive educational and economic opportunities in villages of Southern Africa. Fewer trips to collect water means women and children can spend their time on education, increased food production and economic development. The hippo roller, pushed as one would a wheel barrow, transports 90-liters of water by placing the water inside its "wheel", a water tank on its side, holding 200 lbs. of water, five times the amount possible using the traditional, 40-lbs. 'bucket-on-the-head'

method. A single roller carries enough water to meet the basic daily needs of a family of seven. President of the Rotary Club of Gibsons Luke Vorstermans helped the club launch the "Help Us Roll 1000 Hippos" campaign that quickly rolled out across Canada and the USA. Over 145 Rotary clubs, in District 5040 and three others, have become involved in fundraising, coordinating, and delivering 1400+ hippo rollers to impoverished women in Southern Africa.



Presented by Luke Vorstermans. Luke is President of the Rotary Club of Gibsons and Chair of the club's International Service Committee. In 2016, he helped the club launch the "Help Us Roll 1000 Hippos" campaign that quickly rolled out across Canada and the USA. Over the following five years, Luke actively sought participation from clubs in Rotary Districts 5040, 5060, 5080, and 5550, and grants from those Districts. Over 145 Rotary clubs became involved in fundraising, coordinating, and delivering 1400+ hippo rollers to impoverished women

in Southern Africa. In response to the COVID pandemic, he initiated a collaboration of Canadian, American and South African Rotary clubs to join forces and deliver 1000 Survival Garden Kits to assist vulnerable women start vegetable gardens and create food security. Luke grew up on the East Coast but now resides with his wife, Linda, on the Sunshine Coast of British Columbia.

Keeping girls in school. Uganda



UNESCO estimates that one in ten girls in Sub-Saharan Africa misses school during their menstrual cycle, perhaps representing 20% of a given school year. Many girls drop out of school altogether once they begin menstruating. Lack of affordable menstruation products, facilities and education are among the reasons for this barrier to education, but myths and taboos around menstruation in some societies and communities are further barriers. Working with the Rotary Club of Kampala Nsambya, in Uganda, seven District 5040 clubs have received a global grant for the program, "Girls Helping Girls Stay in School – Supporting Schools in Kampala

Uganda." The local clubs were inspired to start the program when Rotarian and Executive Director of the Candle Light Foundation of Uganda, Rosette Nabuuma visited the Rotary Club of West Vancouver to talk about the Candle Light High School run by the Candle Light Foundation of Uganda and their work providing education and skills mainly for girls from less fortunate families who had been abused in a fight against beliefs and a power structure demeaning to women. Training is given to both girls and boys in order to give a better understanding and encourage gender equality. It helps to build the girl student's self esteem and confidence. 90% of the net proceeds from the sale of "EnviroPADS", go to providing pads to those who may not be able to afford to purchase them. Graduates from the Candle Light High School can become seamstresses and trainers and has become a platform for issues around child marriages, female genital mutilation, and the prevention of HIV.



Presented by Rosette Nabuuma. Rosette is a Women Empowerment Advocate who is a member of the Rotary Club of Kampala Nsambya in Uganda District 9214. Rosette is also a Founding Member and Director at Candle Light Foundation (CLF) which supports vulnerable girls and women by offering diverse education programs to prepare them to live to their full potential. From her humble upbringing in the East African village of Masaka, Uganda, where she worked morning to evening in the fields to her career at universities and with international organizations,

she has provided a voice for thousands of at-risk girls and women and fought many instances of inequity and unfairness. Her passion as an agent for change comes from her being born into a polygamist family of 28 children in a village that did not believe in properly educating female children and the will to fight against and defeat beliefs and a power structure demeaning to women. She is a member of Zonta International and serves on Zonta Women in Technology International Committee. She is Co-Founder of the Rotary Action Group for Environment and Peace. Rosette is the author of, "Ending of Tears: An Inspiring Collage of Triumphant Women's Stories Through Hardship, Pain and Anguish".

Adopt A Village Laos water filters



Most villagers in northern Laos are subsistence farmers and live on very limited incomes. With life span in the 50's for men and low 60's for women, access to clean water has a significant, positive impact on quality and length of life for these largely overlooked people. Over the past decade Adopt-A-Village Laos has helped many thousands of people, mostly children, in small, remote villages of northern Laos, live healthier lives with access to clean water and, in turn, gain a valuable education to improve their lives. Providing water filters to these villages, such as Ban Xiengda, Mok Kok and Ban Houay Phoung, with populations of 2,000 or

less, enables education support in that region, as the original aim of Adopt-A-Village, in a poor country still suffering the impact of the Vietnam War and struggling to look after its people. For the past five years a team of Ladner Rotary members has joined Adopt-A-Village in Laos founder and Ontario Rotarian, Steve Rutledge, and several others from Canada, Italy and Denmark, to deliver the water filters and education supplies to the remote villages in Laos's Luang Prabang province. Each water filter, manufactured in Laos, is presented to a family in a remote village. It can meet the needs of up to eight. The actual water filter, inside the base, is ceramic with many silver particles, cleaning the water as it passes from the large bottle above into the base with a tap. Before each family receives their water filter at least one family member takes part in the hygiene course where they learn how to use and maintain the filter properly. Toothbrushes and toothpaste are included with each filter along with instruction on the importance of proper hand washing. Mike Storey owns and operates Ideal Door Ltd., in Delta, BC. He has been a member of the Rotary Club of Ladner since 2000 and served as club President in 2005-06. His Rotary interests in Community and International Service have included club and regional leader for Adopt A Village Laos. In recent years Mike has been District 5040 Registrar for conferences and other events. He received the District 5040 Rotarian of the Year Award.



Presented by Mike Storey. Mike owns and operates Ideal Door Ltd., in Delta, BC. He has been a member of the Rotary Club of Ladner since 2000 and served as club President in 2005-06. His Rotary interests in Community and International Service have included club and regional leader for Adopt A Village Laos to address water, sanitation and hygiene issues, as well as education, in remote villages of Laos, which he has visited with his wife, Kathy, and other Rotarians on several occasions. In recent years Mike has been District 5040 Registrar for conferences and other events. He has received the District 5040 Rotarian of the Year Award.

Water quality in remote BC communities



The urgent need to resolve water supply issues in rural and remote communities of BC. Too much manganese in drinking water can lead to some adverse health effects especially for infants -- ingested directly or in the preparation of infant formula -- because of their rapidly developing systems are less able to process the mineral. For older children and adults, excess manganese can lead to neurological and behavioural effects as well as deficits in memory, attention and motor skills. Excess manganese in water can produce a metallic taste and lead to staining and clogged drains. Water quality in northern parts of BC has been the focus of research which Dr. Jianbing Li, at the University of Northern British Columbia (UNBC), has been conducting with his team of researchers from UBC Okanagan and Thompson Rivers University. His

team's project titled "Development of Effective, Low-Cost, Portable Water Treatment Systems for Protecting Public Health in Regional, Remote and Rural Communities (R3C)". The team focused its research on the development of a low-cost, easy-to-use microsystem that can solve the water quality problem. Dr. Jianbing Li, is a professor and professional engineer in the School of Engineering at the University of Northern British Columbia (UNBC). His research interests include environmental engineering, petroleum waste management, wastewater treatment, oil spill response, environmental modeling and decision analysis, and environmental risk assessment. He is a Fellow of the Canadian Society for Civil Engineering (CSCE).



Presented by Jianbing Li. Dr. Jianbing Li, PhD, P.Eng., is a professor and professional engineer in the School of Engineering at the University of Northern British Columbia (UNBC). His research interests include environmental engineering, petroleum waste management, wastewater treatment, oil spill response, environmental modeling and decision analysis, and environmental risk assessment. He has produced more than 280 publications in international journals and conferences, including over 190 refereed journal papers. The Natural Sciences and

Engineering Research Council of Canada (NSERC) and Fisheries and Oceans Canada (DFO) have supported his research work. He obtained the 2013 Northern BC Business and Technology Award, the 2010, 2014 and 2019 UNBC Research Excellence Award, and the 2013 UNBC Achievement Award in Professional Practice and Mentorship. He is an Editorial Board member of four international journals, including the Journal of Hazardous Materials, and Journal of Hazardous Materials Letters. He is also an Associate Editor of two international journals. Among many national and international roles he has served the Canadian Society for Civil Engineering (CSCE) which has recently elected him as a CSCE Fellow.

Moderator



Peter Roaf, Moderator. Peter Roaf has been a member of the Rotary Club of Ladner, in Delta, BC, since 2008. He has served the club in various roles including President in 2015-16 and in 2021-22, and Public Relations 2015-present. He is the current District Trainer Elect, working with the District Governor Elect, Interim Chair of the District Public Image Committee and a member of the Diversity Equity Inclusion Committee. He has served as a senior manager and consultant in external and internal corporate communications and public affairs for large and small organizations and as Executive Director of the Delta Chamber of Commerce.