

SMART Sistas ranked 109th out of 163 countries

By Fern Napwatt

IF YOU READ THE VANUATU Daily Post regularly then you are familiar with the group of dynamic young women blazing a new path for Vanuatu's future, the SMART Sistas.

For the second year, the SMART Sistas are participating in the FIRST Global Challenge, this year held in the capital of Mexico, Mexico City.

After 30 hours of travel they arrived in Mexico and were met at the airport by Mexican television media and excited groups of youth from around the world.

"Mexico really rolled out the red carpet for us," said Alex Nganga, one of the team's traveling mentors.

"But for me, the most memorable moment happened in the Vanuatu airport. As we were preparing to board our flight a small girl maybe 4 or 5 years of age recognized the girls. She tapped her mother and said 'Look mommy the SMART Sistas'. She didn't know the girls personally, she just recognized them from the Daily Post or Facebook. I am proud of these girls and how they are inspiring the next generation. That small girl in the airport is growing up in a Vanuatu where smart, creative you women are representing Vanuatu on a global stage and in technology at that! I'm particularly proud to be the father of one of the traveling SMART Sistas, Ayla Nganga."

It was all smiles and excitement at the airport in Mexico when the girls arrived in Mexico on Monday, 12 August after their long journey, but it was different story just 3 weeks prior. The girls discovered a technical error that forced them to completely rebuild the robot and change course when they should have been finalizing their work. Lana Moliue, had this to say on the matter: "We built the competition robot from scratch. There are no directions or templates for us to follow. We know that the robot must complete tasks like picking up things from the ground and putting them in high places or carrying them from one place to another. The robot also needs to turn a crank to activate a wind turbine and finally park on an incline. It needs to do all this in less than 2 minutes and 30 seconds and each robot will do the work differently. I was at the competition last year in Washington, DC and there were so many different robots, no two were the same.

The FIRST Global Challenges gives us the opportunity to show our individual creativity which is nice, but it is also a lot of pressure. The original design used too many motors and was too large. We had to redesign the robot to complete the same tasks, but with less motors and a smaller frame. We were kind of going crazy because we had a small time to build a whole new robot, but working hard as a team we were able to complete the rebuild in time for travel. There is still work to be done once we get to Mexico, but I feel really good about what we were able to accomplish for this year's challenge. We're ready to show what Vanuatu can do!"

The theme of the 2018 FIRST Global Challenge was "Energy Impact", groups of three teams, or "alliances" as they are called in the FIRST Global community, need to activate four energy sources to power the village. In preparation for the 2018 Challenge the SMART Sistas have been exploring energy use in their own country and finding out just how closely related the challenge components are to real life. In the Challenge three teams from different countries work together to activate multiple energy sources in order to power village.

As the SMART Sistas explored energy use in Vanuatu they discovered their own country relies on companies large and small from different nations to provide for our energy needs. The better teams work together, the better they performed on the challenge fields and the same can be said for the nations that come together to power Vanuatu. "What we do in the game is as much about how well our robot performs as it is how well we work with our alliance. Before we step on the arena floor teams from other countries come to us and ask about our robot. They want to know what we have programed the robot to do and how the alliance can best work to support each other. We create a plan for powering the village that takes advantage of each robots strengths and addresses their weaknesses. In some matches we will only pick up solar panels and carry them to the power station or maybe will bring fuel cubes closer to the combustion plant to make it easier for other robot move them into the correct boxes. We have also learned that team work between villages

is also important. FIRST calls it Coopertition. Yes the alliances are powering two different villages, but just like in real life sometimes different villages need to work together and share resources in order to meet everyone's needs. The challenge is about working together to get the most out of our efforts. That is a value I plan to take with me into the future as I make a difference in my country, whether different village, different island or even different countries working together is the best way to make sure of our talents and build a sustainable future," says Ayla Ngang, one of the three traveling SMART Sistas.

"The girls have toured solar and wind farms in Vanuatu. SMART Sistas has worked with private sector businesses like VSolution and Energy4All as well as government offices like TRR and OGCIO. FIRST Global Challenge is more than linking mental bars with nuts and bolts. It is a way to connect the world's youth, the world future. To get them thinking about the problems of today and how they can work together to solve them. What the girls saw during spell was a vision of the future, how things could be, but they have to make that choice, they have to step up and be a part of positive change both nationally and globally. I believe that is what these girls have done."

Say Rodney Philemon, SMART Sistas Committee Coordinator. This year Mr. Philemon was unable to join the girls at the Challenge in Mexico, because he was busy training Vanuatu's next generation of technology leaders at the third annual SMART Sistas ICT Camp in Port Vila. "We had 10 new girls here in Vanuatu working on programing, design and coding, but everyone was rooting for Team Vanuatu through the live stream on Youtube. They represented our country very well from beginning to end." Mr. Philemon continues.

"Our team captain Lana Moliue, was awesome. She had been to the FIRST Global Challenge in Washington, DC last year and I think it really helped. We were having problems calibrating the speed of the arm on our robot, we trying program the motor to it's lowest speed, but it didn't seem to work there was a problem also with the weight of the arm. Lana came up with a really good solution and we used to arm as a strength rather than a weakness. The arm was moving so fast that it would always swing to the



Shot of Ayla working on Robot in Mexico. Photo: Alex Nganga



Girls with the Co-founder of FIRST Global. Photo: Alex Nganga

back, instead of lifting up only to the necessary height. Lana saw that if we use the arms momentum to throw the fuel cube backward into the power station we could get it in better and we would waste time turning the robot around. Once we had a box we could just reverse to the power station and flip the fuel cube in. It saved important

seconds," says Maeva Roberts the third member of the traveling SMART Sistas Robotics team.

In the end the SMART Sistas ranked a respectable 109th in match points out of 163 teams. They returned to Vanuatu on Tuesday to their awaiting family, friends, teammates and a few fans. "What the SMART Sistas have started here is

something that will impact Vanuatu far into the future. I'm proud to be a witness to the history these girls are making," says Mr. Philemon.

For more information on the SMART Sistas, how you can support them and girls in ICT in Vanuatu check out their website at <http://www.smartsistas.vu/> and make sure you like them on Facebook.