



Pacific Women in Surveying and Geospatial Science

With more Pacific women holding university degrees than ever before, the future of women in science, technology, engineering and mathematics has never been so bright. Despite many traditional and cultural barriers, increasing numbers of women are taking on and succeeding in careers once thought to be only suited to men.

Meet the some of the women who are breaking these barriers. These women have established careers in the traditionally male-dominated fields of Surveying and Geospatial Science.



Ms. Lomot Kristina Kisokau is a Senior Mine Surveyor at Mine Technical Services, in Papua New Guinea (PNG). Ms Kisokau holds a Diploma in Surveying and Bachelor of Technology Degree in Surveying from the PNG University of Technology.

Her story

I chose to become a Surveyor because I find it to be the perfect blend for my interests: mathematics, technology and being outdoors. I also saw the

opportunity this career could take me with the different branches of surveying- building construction, civil road works, cadastral, mining just to name a few.

The most difficult challenge for me personally was when I became a mother. I was not taught in university how to juggle a surveying career and motherhood. And with the type of industry I work in (mining requiring us to fly-in and fly-out of remote locations), it is quite hard leaving behind a baby and coming to work with a firm mind, focus and concentration.

But all these things provoked me to push myself to prove not only to my doubters but to myself that I can do this.

What's it like working in this field?

Working in a male-dominated profession, one of the main challenges is being physically fit. We spend hours in the field, standing, walking and heavy carrying survey equipment and also bearing in mind the different terrains that we work on. In addition to that, some of the latest equipment is heavy.

Also, it can be culturally challenging when working with men from different cultural backgrounds who find it against their cultural beliefs to take orders from a woman.

I believe that generally to overcome any challenge, one needs to have an open mind, be prepared to accept corrections and criticisms and not to take them too personally, stay focused especially when on the job, show the respect to earn respect and maintain a positive outlook.



Your advice to others?

If you have a passion for being outdoors in any kind of weather, don't mind the sweat and dirt, can handle any kind of pressure, you are into technology advancement and have a strong, open-minded personality, go for it. I'm sure there are a lot of women around the world that are surveyors and are really enjoying it, especially with the improvements in the technology associated with surveying.



Ms. Darlynn Takawo is a GIS analyst at Palau Automated Lands & Resources Information System (PALARIS) at Ministry of Finance based in Koror, Republic of Palau. She has undertaken GIS training at the Palau Community College.

Her story

In the beginning of my career, I held the Realty Aide position at the Bureau of Lands & Surveys. I had the opportunity to attend, for free, the GIS Training at the Palau Community College. GIS is a tool that can be used on almost every field of work or study. Because of this tool I was able to contribute and help the different government and non-government agencies in my country in the planning process and analysis in improving services and for the decision makers in our country.

What's it like working in this field?



I have been involved in projects that require my knowledge and expertise in addressing community and environmental issues such as rat eradication, dump site locations, dengue fever outbreaks, water lines, sewer lines, agriculture survey, invasive species survey and others. These projects require a lot of field work to collect data for analysis.

How do you overcome challenges?

The weather in Palau is very unpredictable. We have to stop in the middle of our field work because it starts to rain, or we have to start from the beginning when our tripod falls because of strong winds, or when power outages occur. Sometimes we skip lunch in order to finish some tasks on time, but with experience over the year, I am able to complete work. The information that we collect are used to generate maps to be used by decision makers in addressing issues.

Your advice to others?

Although it may seem that this career path is mostly for men because of field work and the equipment, if you have the desire to help your community or country, it doesn't matter anymore if you're a female. You'll enjoy visiting a lot of places, meeting new people, and sharing your knowledge to interested individuals. Anything is possible if you keep trying and never allow your fears to get the best of you.



Ms. Marawa Rusukerekere holds a Diploma in Land Surveying from Fiji National University (FNU) and is currently employed with the Fiji Lands Department as a Surveyor Technician.

Her Story

I was a technical drawing student back in High School and we learned the basics of Surveying. From that point, I was quite keen to pursue a career in Surveying or Engineering. I am an outdoor type of person and the thought of working in an office throughout my whole life wasn't appealing. With this in mind, I knew I had to fit in a field where fieldwork was a must, as this compliments my love for nature and adventure. I am glad I decided on this career.

What's it like working in this field?

As a female technician, I'm always assigned to projects that do not involve camping in remote locations. My team leaders, other male technicians and assistants are always aware about the nature of work I'll be involved in and how I will overcome challenges such as sleeping on rough terrain, bathing in nearby streams etc.



How do you overcome challenges?

I bond well with my team members and I've been to a lot of projects but still I am hardly assigned to projects that involve camps due to my gender. Nevertheless, I prove to my team leader that this is the field I have chosen and I will be flexible to the project I'm assigned to. It is important to stay positive with the nature of work and be a team player, especially in a male-dominated field.

Your advice to others?

If you're an outdoor type of person, you have an engineering mindset and enjoy working and learning new technology, then I recommend a career in surveying.



Ms. Dorothy D. Pion is a GIS and Remote Sensing Specialist for the Mineral Resources Authority based in Port Moresby, Papua New Guinea. Ms. Pion holds a Master of Science Degree in Geographic Information Systems and Science (Kingston University, London) and a Bachelor of Technology Degree in Cartography (PNG University of Technology).

Her Story

If you asked me about this when I was in year 12, I would have told you that I had no idea such a field existed. In high school I listened to stories of Michael Larmer and Graeme Arman (both surveyors) who later became partners and formed a company. Their work and dedication intrigued and inspired me as a teenager. I wanted to be a surveyor, but with Papua New Guinea's unpredictable weather patterns and treacherous terrain, I opted to do Cartography instead in 2nd Year at Uni. Apart from this, I am the first female to get elected into the Association of Surveyors of PNG (ASPNG) as secretary, after 51 years of the Association's existence.

What's it like working in this field?

What intrigues me in this field is how geospatial information can be used to create policies and to guide planning, management and development of natural resources which are essential to reducing risks as well as predict impacts on human lives. However, cost can be a challenge for us, as it is quite expensive to get access to updated large scale geologic maps and the latest Remote Sensing images, especially Landsat and DigitalGlobe images.



My employer is also involved in community service work apart from being a mineral/mining regulator in PNG. The local seminary was trying to find a solution to their water problems and I advised them to write to our office which they did and got a favourable response. A groundwater investigation team was sent to this seminary for further investigation. After the investigation a report with maps were produced, and with this the seminary was able to get funding to set up a borehole and tank that is now supplying water to the seminary and the neighbourhood.

How do you overcome challenges?

This field and application needs to be promoted to organisations, especially government entities, to be utilised to make informed decisions. In PNG, for example, if the Electoral Commission had used GIS in conducting the National Elections last year, a lot of its logistics problems could have been minimised. We just need to do more awareness of what we do and how this technology can be used to help overcome with location-based challenges like this.

Your advice to others?

The Geospatial world is dynamic and widespread. Everything is location-based and you are sure to find work in any industry that deals with locations. GIS and other geospatial technologies are constantly evolving, presenting opportunities for people with different work experiences and educational backgrounds to expand in this field.



Ms. Rima Browne is a Geospatial Specialist for Infrastructure Cook Islands. Ms. Browne holds a Bachelor of Science, majoring in Geography at the University of Auckland.

Her Story

I've always been more drawn to the sciences instead of the arts. I enjoy proving things hooked on the challenge of calculating and discovering how things work. After my first year of tertiary studies towards my bachelor's degree, I came back home for summer break and was employed by Infrastructure Cook Islands, a government agency tasked with ensuring a fit-for-purpose infrastructure for all. During my 3-month summer employment, a colleague (now my director), Vaipo Mataora intrigued me to take up geography as my major with his leading argument being to pursue GIS as a career. Enticed by its ability to be applied across numerous professions and where it could take me in the future when I returned for my second year of studies, I changed from a BE to a BSc and 3 years later I'm working as a geospatial specialist for Infrastructure Cook Islands.

What's it like working in this field?

Working in an office full of my male counterparts was intimidating to begin with. There are only 9 women in an agency of almost 70 staff and only 3 of them (including myself) are working in the technical/science-based divisions while the rest are in admin and finance.



It is commonly known that science-based professions such as mine are commonly taken up by men, but it is also worth noting that all of my geography classes were female dominant (unless all the guys just never came to class). So our numbers are increasing in these occupations and I think that's just great. I will say that I am lucky to be working in an agency where decisions are more so based on one's own capabilities and expertise.

How do you overcome challenges?

I've learnt to be more confident and to speak up if I feel I am just as capable as my fellow male co-workers in doing projects.

Your advice to others?

I encourage those who are interested in a scientific career path but are not yet sure what direction to take to consider GIS. It's new and exciting and always changing and growing with time. It has countless applications, it's easily accessible and is the direction the future is heading in.

Many thanks to our development partners



Established in 2014 by geospatial and surveying professionals from 14 Pacific Island Countries, the Pacific Geospatial and Surveying Council (PGSC) envisions sustainable development in the Pacific, enabled by world class geospatial information and surveying services. The PGSC also actively advocates for more opportunities for women and youth in geospatial and surveying careers, and seeks to foster an inclusive, self-reliant and innovative professional culture throughout the region.

For more information visit <http://gsd.spc.int/pgsc/> or email the PGSC Partnership Desk pgsc@spc.int