

Why I want to be a geologist

I grew up in a village in Kenya and as everybody else in our community I would go fetch water in the nearby stream for our domestic use. If the stream dried up we would have to walk further to the main river, a total 7-kilometer journey carrying water in a 20-litre container strapped on the back. Every time I would go to the river with my friends my grandmother would remind me to be careful and keep my eyes open. I never quite understood why she would repeatedly tell me this but later I figured she was afraid I would be 'stolen' meaning kidnapped and forced into early marriage as it had happened to some girls; this was a common custom at the time. I faced a lot of hardships going to fetch water everyday and most times I would walk facing the clear blue sky, in the mid day heat, quietly pleading with God to make it rain.

Till today my community still has limited access to clean water among other basic needs. It is still a norm to have people walk long distances in search of the commodity. Moreover, it is considered a woman's job to fetch water, clean and cook so girls in my community are disadvantaged because they are mostly occupied with domestic chores. I only got lucky because my mother and father were teachers and so in a way I was privileged, and I knew better. While pursuing my undergraduate degree in math and chemistry, I learnt about geology when my friend convinced me to accompany her to their class field trip. I was so impressed and after the field trip, I confidently went to see the Dean College of science at the University of Nairobi and convinced him I wanted to change courses to geology, luckily he agreed. For the record, changing courses at the time was an impossible task; it was almost cast in stone after course registration nothing could be done.

After my studies, I landed a job as a geophysicist responsible for exploring new drilling sites for geothermal wells. Through my contribution and that of the entire team we were able to recently commission additional 280 Mw putting Kenya on the map being the

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only country producing most geothermal energy from a single plant. Working in the power industry made me see the relevance of my job towards economic development of my country and not just my community. My motivation has been to be in a position where I contribute to providing lasting solutions to perennial problems in my country. I understood if I became a geologist/geophysicist, I would be able to solve the water problem by siting boreholes, carry out geotechnical work for construction of small dams along streams and give recommendations on sustainably managing this vital resource.

Being at UTEP has broadened my perspective; I have access to networks, knowledge and even software I did not know about. I am currently, working on 3D inversion of electromagnetic data and gravity data from Kenya to understand the geothermal reservoirs and allow sustainable utilization. To fund my studies, I work as a teaching assistant where I get to design labs with my advisor where I teach geology and geophysics to the undergraduate students.

Every winter break I travel home to collect more data for my work and this has helped me keep close contacts with professionals in my country where I am an active member of the Geological Society of Kenya and also maintain close connections with my former University. In my undergraduate days we would not have sufficient rocks samples to look at since over the years they had been misplaced. Wherever I travel, I collect rocks and donate them to the geology department where I am hoping to enrich the rock collection.

After I graduate I hope to go back to Kenya, to work continue working in the energy sector. Guiding policy formulation regarding exploitation of geo resources in the Kenya is something I look forward to be involved in. If I get a chance I also hope to teach part time in a University, and top of my list is to organize summer camps for geology students from Kenya and all over the world to get a chance to do field work in Kenya; from the classic East African rift to the metamorphic Mozambique belt. I enjoy science and my dream is to inspire.