

Benefits and lessons learned from organizing field camps in Kenya

By Dorothy Kanini Mwanzia

Students learn a lot of theory in class but rarely have adequate time to engage in practical lessons. When it happens, it is mostly demonstration. This means that students rarely have the opportunity to solve real-life problems using the knowledge gained in class. This is where the Field Camp grant comes in handy.

I have benefited in many ways and learned a variety of lessons by participating in field camps, as both a student and as an instructor. I started participating in field camps during my undergraduate years.

I was among the students who attended the first field camp organized by my institution. This was the first time that I saw geophysical instruments. The first project that the chapter conducted was on groundwater exploration. I was trained how to use geophysical equipment, such as the gravity meter, resistivity meter, and magnetometer, to collect data with the objective of solving a real-life problem. I was also trained in data processing, analysis, interpretation, and presentation. This led to my interest in geoscience courses, and I enrolled for a master's degree in applied geophysics.



(a) Pre-field work training and (b) the actual field work in 2012.

While earning my master's degree, I was elected as the SEG Student Chapter President for Jomo Kenyatta University Geophysical Society (JKUGS). In the role, I became involved in

planning and organizing a field camp. The field camp provided students with an opportunity to learn how to apply theoretical knowledge that they were taught in the classroom. The experience of organizing and leading the field camp was great and different from the experience that I had as a student.

The team of staff had to do thorough investigations to establish a viable project. This involved identifying a problem that could be solved by using geophysical knowledge and pulling together resources, both monetary and personnel, needed to carry out the research. The personnel involved were mainly students from various universities within the country. The chapter handled the monetary issue by submitting a Field Camp grant application to SEG. The organizing team had the task of preparing for the field camp, since the team and student chapter faculty advisor were the ones that would provide guidance to participants.

The field camp provided me with the experience of running a geophysical research project. The participants were able to collect data, process, interpret, and present the results of the survey on the last day of the field camp. It was exciting to guide students and see them appreciate the theory taught in class. After the field camp, I took the data, analyzed it in depth, and wrote my master's thesis and two publications.

The field camp was followed by various engagements, where I learned about the Africa Array Field School (AAFS). AAFS is organized every year at Witwatersrand University in South Africa and is led by Professor Susan Webb. I later had the opportunity to participate in this field school twice, first as a student and the second time as an instructor.

AAFS gave me a chance to see some geophysical equipment for the first time, for instance seismic equipment. In particular, I was excited to see a geophone. I only used to hear about it and see it in pictures. This experience boosted my confidence, and I volunteered to organize field camps in Kenya.

In summary, I have benefited greatly from SEG Field Camp grants in many ways. I had the opportunity to be trained as a student, then trained other students, and learned a lot about leadership. I acquired data for my master's research thesis and formed connections with students from various universities in Kenya and in Africa at large. I also had the chance travel to South Africa, where I learned how to apply geophysical techniques that I had not interacted with

before. In addition, I learned about different cultures while meeting people from several countries. Finally, I eventually opened my own limited company, the Doben International Geophysical Consulting Company.



Pictures taken during AASF, as a student in 2016 and as an instructor in 2019.



Pictures taken during JKUGS field camps (a) in 2016 and (b) 2017



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