

University World News
South Africa: Long road for women in science
Munyaradzi Makoni

Each ninth day of August, South Africa recalls the nationwide bravado displayed by 20 000 women of all ages marching together towards the Union Buildings, the government offices in Pretoria. It has since become South Africa's self styled women's day. The women protested against the restrictive pass laws that demanded a passport for black women. In the month of its 50-year anniversary, the 'protest' has taken a reflective tone - women in working in science need to be more visible.

For every three men in South Africa who went to the university to study for a science and engineering degree - if the estimates are something to go by - only one woman holds the same degree.

Overall about 40 percent of South African researchers in science, engineering and technology are women but the percentage of women in physical science is significantly lower, says a paper published by American Institute of Physics in 2008.

They have been fighting to balance this difference since the formation of South African Women in Science in Engineering (SAWISE) a decade ago, says its chairperson Professor Anusuya Chisamy-Turan.

"The participation of women mostly blacks in science and engineering has always been very low before the coming of democracy in 1994 but the establishment of SAWISE in the new era has encouraged and seen more women taking up the opportunities in sciences," says Chisamy-Turan the Zoology professor at the University of Cape Town (UTC).

Despite many women in sub-Saharan Africa making an impact on the engineering and science scene more with the potential need to be encouraged to venture into those male dominated sciences, says Chisamy-Turan.

Numerous past researches have cited disparities in salaries, sexist attitudes, and problems in balancing a career and family as some of the problems that drive female scientists and engineers away from careers in the science and technology industries.

"The few women that are around need to be more visible on selection committees, and committees that determine policy or funding," Chisamy-Turan told University World News.

Naledi Pandor, the Minister of Science and Technology told participants at the SAWISE meeting at Wits University on the National Women's Day that women have an important role to play in sciences.

"At present, scientists are needed by our society, not only to face the challenges resulting from new developments in technology but also to face the challenges of sustainable development," said Pandor.

As women move up the science career ladder, they feel increasingly marginalised from full participation in the academic process Beverly Damonse

executive director of the South African Agency for Science and Technology Advancement, also told women in science at Wits University

"There are still some organisations that do not have bathroom facilities for women as they still believe that science is for men," said Damonse.

A senior research assistant, Dr Tina Heiligers, at Element Six, an international company in production of super materials says few women choose sciences because it requires from the beginning a background in mathematics, physics and chemistry.

Dr Rachel Chikwamba, a research group leader in biotechnology at the Council for Scientific and Industrial Research (CSIR), says the pressure of reconciling family and profession often results in fewer women in top science positions.

"We are both parents and homemakers and that dichotomy of responsibility remains a challenge to many women," says Pretoria based Dr Chikwamba.

Dr Chikwamba urged organisations to develop specific policies that enable women with children to strike a balance between the workplace and home.

"Many of the organisations are still sceptical of our capabilities and often we have to work hard to prove that we are useful," says Chikwamba whose group researches solutions for nutrition, drug discovery, disease eradication and manufacturing process development.

An increase of working in science since the democratic government took over has been noted but the general talk is more women are mostly choosing health sciences at university level.

The sciences are still a male-dominated environment and difficult to break through, says Thyla Van der Merwe, a cryptographer better referred to as a code breaker.

"It takes hard work and dedication to perform well in this domain," Van de Merwe told aspiring university candidates in Cape Town.

Speaking at the Cape Town SAWISE meeting on the same day with Emily Mokoena, a research officer with the Diamond Research Laboratory said women's regard for hard sciences as tough has resulted in loss of interest in science.

Science subjects like physics, chemistry and mathematics, are considered tough and can not be practically fitted into daily life as they deal with invisible concepts and theories.

This has however inspired organisations like SAWISE to support women in science. Dr Laura Roden of the Molecular and Cell Biology department at UCT, handling SAWISE education affairs says that though few science honours students that have benefited from SAWISE scholarships over the years are all actively pursuing sciences.

SAWISE awards the Angus Scholarship to a sub-Saharan black woman graduate with 70 percent to study at honours level in any field of science and engineering past ten years. They regard the honours degree as a critical area that is usually overlooked when it comes to funding students.

Though out numbered the South African government earns respect for its commitment to promote women in science. It has a South African Women in

Science Awards that seeks to reward those who are doing well in sciences while encouraging university graduates to remain in science field.

The numbers might take long to swell but the political will to address the situation has already been publicly declared.

During the first African Union women in science conference held in Johannesburg two years ago South Africa declared it would take the lead in the initiative to raise the profile of women in scientists not only in South Africa but the continent

"I believe we can turn the tide of low participation rates of women in science by inspiring young women to carve out a niche for themselves in science and engineering, the then minister of Science and Technology Mosibudi Mangena. Mangena urged all women scientists to be part of the science agenda aimed at building the science systems of the continent."

But is this enough?

"Of course, there is always more that can be done- for example, creating more fellowship programs for graduates would be one thing that would enable women to stay in the sciences," says Chisamy-Turan.