



## **Sithabile TIRIVAROMBO**

### **Home Country**

Zimbabwe

### **Degree**

PhD Water Science

### **Expertise**

Aquatic Chemistry and Hydrology

### **Research Focus**

Climate Change and Variability Impacts on Water Resources Management of the Zambezi River Basin

### **Host University**

Rhodes University, South Africa

### **Fellowship Awarded**

2010

Sithabile Tirivarombo was born and raised in Gweru, Zimbabwe, where she attended secondary school. Her two sisters and brother (now deceased) lost their father at a young age, and she lived with her grandmother under the care of aunts and uncles who encouraged her scholastic pursuits. Married at the age of 25, she has two sons. Her husband unfortunately died in a traffic accident in 2001. Overcoming this setback required a fresh start and a redoubling of effort in her scientific career.

After obtaining a Bachelor of Science honours degree in chemistry at the University of Zimbabwe in 1994, Sithabile became a teaching assistant in the university's chemistry department. She attained a Master of Science degree in water resources engineering and management in 2000 and in 2003 she joined Chinhoyi University of Technology in Zimbabwe where she later helped found the Department of Environmental Sciences and Technology, developing course synopses and recruiting staff members. She then developed a Bachelor of Technology honours degree in environmental health in 2006, and in 2008 she joined Ethiopian Civil Service College where she lectured in the urban management and planning master's degree program. In 2009 she began full-time doctoral studies at the Institute for Water Research at Rhodes University in South Africa.

At Rhodes University, Sithabile is focusing on the modeling of climate change impacts on water resources in the Zambezi river basin. Major issues in the basin include adaptation to climate change as well as environmental management and sustainable development along with achieving cooperation among the basin's eight riparian countries. Among her research objectives, she hopes to gain a better understanding of the interaction between the climate and hydrologic systems and to translate climate change signals into the hydrological component of the basin. She plans to carry out a comprehensive assessment of the vulnerability of basin water resources to climate change and climate variability, and to analyze long-term rainfall runoff data in the basin to determine how climate change might affect freshwater resources and food security. As well, she plans to formulate new hydrologic estimates that can inform better management practices, to understand risk and uncertainty associated with climate and water resources, and to assess climate-related vulnerabilities and identify possible adaptation strategies.

After graduating from Rhodes University Sithabile looks forward to returning home and adding to the scientific knowledge base of her country. She also hopes to inspire other females to pursue scientific careers.