

Science Initiative Group (SIG)



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A year ago, the Science Initiative Group reported on the establishment of the Regional Initiative in Science and Education (RISE), which provides Ph.D. and M.S. training in science and engineering at networks of universities in sub-Saharan Africa. As of June 2008, three RISE networks had been selected from among forty-eight candidates to receive funding through a grant to SIG from Carnegie Corporation of New York. At the strong urging of the RISE selection committee, SIG obtained a supplementary grant from Carnegie Corporation to support two additional outstanding networks. They are:

African Natural Products Network (RISE-AFNNET)

Academic Director: John David Kabasa, Natural Products Research Laboratory, Department of Physiological Sciences, Makerere University, Uganda

Other participating institutions:
University of Nairobi, Kenya
Sokoine University, Tanzania

Sub-Saharan Africa Water Resources Network (SSAWRN)

Academic Director: Denis Hughes, Director, Institute for Water Research, Rhodes University, South Africa

Other participating institutions:
Eduardo Mondlane University, Mozambique
University of Botswana
Makerere University, Uganda

These two networks—along with the earlier-named African Materials Science and Engineering Network (AMSEN, with participating institutions in Botswana, Kenya, Namibia, Nigeria, and South Africa); Southern African Biochemistry and Informatics for Natural Products (SABINA, in Malawi, Namibia, South Africa, and Tanzania); and Western Indian Ocean Regional Initiative in Marine Science and Education (WIO-RISE, in Mozambique, South Africa, and Tanzania)—initiated their research and training programs in early 2009.

Students earning their degrees through RISE come from all nine countries where RISE has a presence. Some are recent university graduates who are continuing their education with an eye toward university research and teaching careers, while others are faculty members seeking to upgrade their qualifications and then resume teaching and research at their home universities. Some seventy-five students are enrolled in the fifteen universities and research institutes that make up the five RISE networks, and each has access to the facilities and expertise available at all institutions within the network.

The work at **AMSEN** focuses on developing the skills in materials science and engineering needed to add value to the extensive mineral deposits in southern Africa.

Faculty and students involved with **RISE-AFFNET** are seeking to develop Africa's rich biodiversity into a natural products industry of social and economic significance through coursework and research in engineering, biochemistry, environmental science, pharmacology, economic development, and nutrition.

SABINA takes advantage of the biodiversity of southern Africa, working with natural products that have the potential to increase food security, public health, and value-added exports. **SABINA**'s research emphasis is on biochemistry and chemistry of natural products.

At **SSAWRN**, research and instruction centers on the most pressing water issues of sub-Saharan Africa, including rising use, declining quality, insufficient research and teaching capacity, inadequate weather stations, and the likelihood of increased variability of water supplies associated with future climates.

WIO-RISE provides research and training in skills associated with the utilization of coastal and marine resources and protection of the coastal and marine environment.

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