

Enhancing the Capacity to Provide Quality Chemistry Education at Secondary and Tertiary Levels in Ethiopia

This project is the next leg of the Flying Chemists Program, a program coordinated by the IUPAC Committee on Chemistry Education. The goal of the project is to empower Ethiopian chemists and teachers to modernize chemistry education at secondary and tertiary levels. Specifically, the project aims at the following:

- introducing innovative and cost-effective laboratory instruction in chemistry education
- empowering chemistry instructors in designing and implementing contextualized and learner-centered chemistry education
- promoting innovative ways of training quality chemistry teachers

Ethiopia is one of the least developed countries located in the horn of Africa. It is also the only country in Africa that has not been colonized. Despite its economic constraints, it has a strong professional association—the Chemical Society of Ethiopia—that has been running various professional activities in the country for an uninterrupted 26 years. CSE also initiated the establishment of the Federation of African Societies of Chemistry (FASC), headquartered in Addis Ababa/Ethiopia.

Ethiopia has been revising its secondary school chemistry curricula and its implementation strategies. All these revisions have had an impact on tertiary chemistry education in one way or another. Currently, only a small percentage of secondary school students choose chemistry as their major subject. There is also a great deal of confusion about the ways in which chemistry teachers should be trained. Issues that need addressing include the balance between laboratory time and pedagogy, the best way of handling both areas, and the length of the training period.

In order to address these issues, this project proposes to do the following:

- survey the existing chemistry curriculum, methodology, assessment, and overall context (government, industry, academia) at secondary and tertiary levels
- organize a conference on “Chemistry Education in Ethiopia: Today and Tomorrow”
- introduce a new innovative teaching and learning program in chemistry education to secondary and tertiary teachers
- increase awareness among policy makers about the importance of improving teachers’ and students’ literacy in chemistry that is related to our daily lives
- establish follow-up mechanisms to ensure sustainability

The conference will take place in February 2011 in Addis Ababa, Ethiopia, in the two days prior to the 27th annual congress of CSE. The target audiences are Ethiopian chemistry professors, secondary school chemistry teachers, and chemists from FASC member countries. The conference will serve as a major event for celebrating the IYC2011 in Ethiopia.

The Flying Chemists Program will contribute to the project by providing the following speakers: Jorge Ibanez, Peter Mahaffy, Mei-Hung Chiu, Hans-Dieter Barke, Guenter Harsch, Temechegn Engida, and Sileshi Yitbarek. The FCP visit will be organized by CSE, with the full support and participation of FASC, PACN, Ministry of Education, Ministry of Science and Technology, and Ministry of Foreign Affairs of Ethiopia.

For more information contact the task group chair Temechegn Engida <temechegn@gmail.com>.

 www.iupac.org/web/ins/2010-025-1-050



Temechegn Engida, delegate from Ethiopia and president of FASC, discusses plans for IYC2011 in Africa at the 2009 IUPAC General Assembly.

