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# INTERNATIONAL SCIENCE PROGRAMME ISP

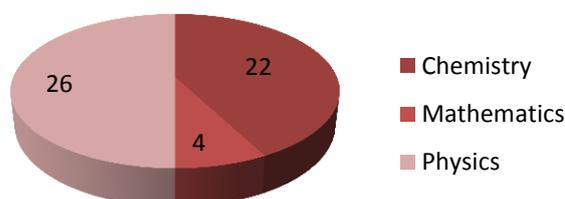
## Activities and achievements in 2012

The International Science Programme (ISP), at Uppsala University, Sweden, assists low-income countries to build and strengthen their domestic research capacity and postgraduate education in the basic sciences chemistry, mathematics and physics. ISP aims to contribute to the growth of scientific knowledge in low-income countries, by engaging in long term collaboration with institutionally based research groups and regional scientific networks in Africa, Asia and Latin America. The main funding of ISP is from the Swedish International Development Cooperation Agency (Sida). The Faculty of Science at Stockholm University provides additional support. This is a summary of the achievements of ISP and supported activities in 2012.

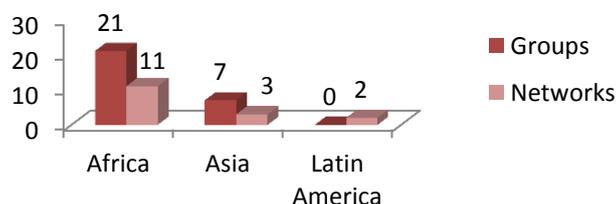
### SUPPORTED ACTIVITIES

In 2012, ISP provided support to 28 research groups and 16 regional networks. The supported groups are located in ten countries in Asia and Africa; Bangladesh, Burkina Faso, Cambodia, Ethiopia, Kenya, Laos, Mali, Uganda, Zambia, and Zimbabwe. Supported regional networks are coordinated from countries in Asia, Africa and Latin America. Groups and networks together utilized about 20 million SEK.

Number of supported groups and networks by program



Number of supported groups and networks by region

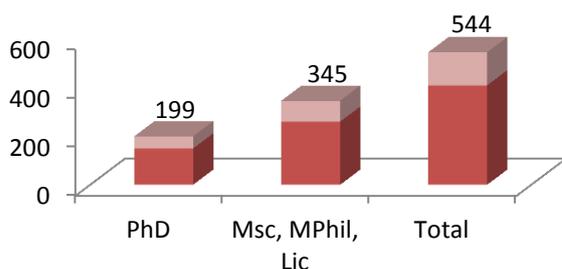


### NUMBER OF STUDENTS

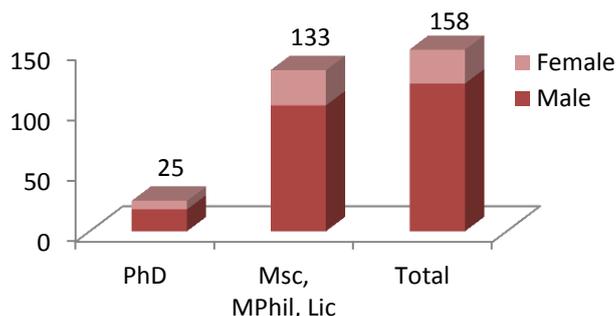
**Registered.** In 2012, 544 postgraduate students were reported as active in ISP supported groups and networks, 199 students on the PhD level (25% female) and 345 students on the MSc, MPhil or Licentiate level (25% female). About a fourth of the PhD students (27%) and 2% of the other postgraduate degree students were trained on a sandwich basis, spending part of their research training at home and part at a host university abroad. The remaining students pursued their postgraduate studies in local programs at universities in their home countries.

**Graduated.** Supported groups and networks graduated 158 students during the year, 25 PhD students (28% female), and 133 MSc, MPhil and Licentiate students (22% female).

Number of registered students



Number of graduated students





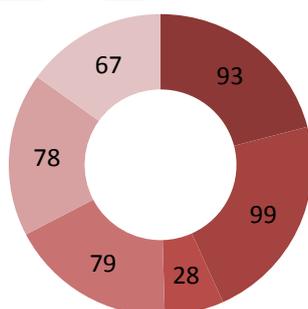
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## DISSEMINATION

In 2012, the supported groups and networks published 192 papers in international journals out of which 48% were in high impact journals, listed with Thomson Reuter (TR) impact factors. Group and network members gave 224 conference contributions out of which 146 were in Africa, 76 in Asia, and two in the Americas. They arranged 45 scientific meetings, attracting in total approximately 2,000 participants.

### Number of publications



- International journals TR impact
- International journals TR unlisted
- Books, chapters, popular publications etc.
- International conference contributions
- Regional conference contributions
- National conference contributions

## EXAMPLES OF RESEARCH FINDINGS AND POLICY INFLUENCE

**Kenya.** In collaboration with World Agroforestry Center (ICRAF), a research group at the Institute of Nuclear Science and Technology, University of Nairobi, developed prediction models for soil characteristics in Mount Kenya forest. This contributes to improved knowledge on soil fertility and consequently enhances the capacity to estimate the ability to address “hidden hunger” and level of food production quantity from small scale subsistence to commercial farming.

**Zimbabwe.** At the African Institute of Biomedical Science and Technology, synthesis of analogues of the anti-malaria drug amodiaquine was carried out with the intention to overcome the toxicity of the parent compound. In collaboration with University of Cape Town, analogues thought to be safer were designed and synthesized. Some of them retained good anti-malarial activity.

**Bangladesh.** Results from studies at the Department of Chemistry at Dhaka University, of DDT and its metabolites in soil and water at the “Chittagong Chemical Complex” was submitted to the Bangladesh Chemical Industrial Corporation (Government Authority) for declaring the Godown area as contaminated zone and to evacuate people.

## ADDITIONAL ASSIGNMENTS AND ACTIVITIES IN 2012

The collaboration with Sida in 2012 has included coordination assignments in bilateral programs for development of scientific research and higher education in Ethiopia, Mozambique, Tanzania, and Uganda. The coordination assignment regarding Addis Ababa University, Ethiopia was concluded. In 2012, ISP entered into a new agreement with Sida to administrate subsistence allowances to students from Bolivia, Rwanda, Tanzania, and Uganda, while in Sweden.

ISP agreement for coordination of Uppsala University’s cooperation with Al Baha University (ABU), Saudi Arabia aiming to strengthen the academic staff and the higher education programs in sciences and related fields at ABU was renewed for three years 2012-2014. Preparatory activities continued.

ISP continued coordination of collaboration with National Mathematical Centre (NMC) in Nigeria. During the year an employee from NMC continued his PhD training at Luleå University of Technology.

