



UPPSALA
UNIVERSITET

INTERNATIONAL SCIENCE PROGRAMME ISP

ISP Completion Report 2008-2013

SUMMARY RESULTS

In 2008-2013, ISP-supported research groups and scientific networks:

- Have graduated 172 PhD students, 59 of those “sandwich”.
- Have graduated 590 MSc etc. students, 10 of those “sandwich”.
- Have published 1,175 scientific papers, 2010-2013 close to 40% in high-impact journals.
- Have made 1,371 contributions to scientific conferences.
- Have arranged 273 scientific meetings.
- Have used allocated grants to build, use, and maintain technical resources, and to carry out research that has required using consumables, conducting fieldwork, etc.
- For all these activities using 114.3 million SEK, which is about 80% of the funding Sida has contributed to ISP.

The number of supported groups and networks 2008 was 60, and 2013 it was 53; during the period 34 activities were phased out of support, and new support was initiated to 27. In addition, ISP, as an organization:

- Has introduced narrative, more results-orientated annual reporting.
- Has held an international conference to review network support.
- Has secured additional funding to the core program from Stockholm University.
- Has been favorably evaluated by Sida, with recommendations to implement a RBM-type monitoring and evaluation system.
- Has been subject to a development support theoretical study by Linköping University, indicating reasons for the good effects of the program.
- Has provided scholarships for Minor Field Studies.
- Has implemented RBM and established a strategic plan 2013-2017.
- Has secured continued Sida funding 2014-2018, as a result of the Uppsala University application to Sida in 2012.

INTRODUCTION

Uppsala University established the International Science Programme (ISP) in 1961, to strengthen the capacity in least developed countries for higher education and scientific research in the basic sciences. There are currently three programs:

- The International Programme in the Physical Sciences (IPPS), dating back to 1961,
- The International Programme in the Chemical Sciences (IPICS), from 1970, and
- The International Programme in the Mathematical Sciences (IPMS), from 2002.

ISP provides long-term support to institutionally based research groups and scientific networks, strengthening the domestic and regional capacity in basic sciences. Swedish and other universities contribute to scientist-to-scientist cooperation, while the ownership of activities is with the supported units. The ISP funding is used mainly for postgraduate training, scientific research, and the development of needful technical resources.

In the period 2008-2013, Sida continued contributing to the operation of the direct support program (sometimes denoted “core program”) of ISP. This report provides an overview of the main activities and outcomes of the core program in the period, and will be followed by a corresponding in-depth report for the period

Comprehensive information about ISP is given at www.isp.uu.se and in the reports and publications available there. This includes the full annual reports 2008-2013, as well as a two-page summary report for each year.

ACTIVITIES

Research groups and networks. In 2008-2013 Sida contributed 145.5 million SEK to the core program, which was distributed to a number of scientific research groups and networks (Table 1) in partner countries, predominately in Africa, but also to a few in Asia and Latin America. Other contributions used in the core program were received from Uppsala University (14.8 million SEK) and Stockholm University (SU; 3,0 million SEK).

Table 1. Number of research groups and scientific networks supported by ISP 2008-2013 using Sida funding

Activity	2008	2009	2010	2011	2012	2013
Research Groups	42	29	28	30	28	34
Networks	18	18	14	15	16	19
Total	60	47	42	45	44	53

In the beginning of the period (2008), research groups were in Bangladesh, Burkina Faso, Cambodia, Cameroon, Ethiopia, Ghana, Kenya, Laos, Malawi, Mali, Nigeria, Peru, Sri Lanka, Senegal, Tanzania, Uganda, Zambia and Zimbabwe. At the end of the period (2013) research groups supported using the Sida contribution were in Bangladesh, Burkina Faso, Cambodia, Ethiopia, Kenya, Mali, Uganda,

Zambia, and Zimbabwe.¹ The lower number of countries 2013 than 2008, with research groups supported by ISP using Sida funding, was due to the concentration of partnerships mainly to Swedish focus countries.

In 2008-2011, 34 research groups and networks were phased out of support, and new support was initiated to 27 research groups and networks.

In 2008-2013, 80% of the grant allocations were to supported groups and networks in Africa, and 18% to those supported in Asia (Figure 1). Allocations distributed to Latin America were less than 2%, and to interregional networks less than 0.2%.

IPICS and IPPS distributed 41% each of the total allocations, and IPMS 18% (Figure 2). IPMS distributed <80% of the allocations to networks, and IPICS had more allocations to networks, 39% of the chemistry allocations, than IPPS, 15% of the physics allocations.

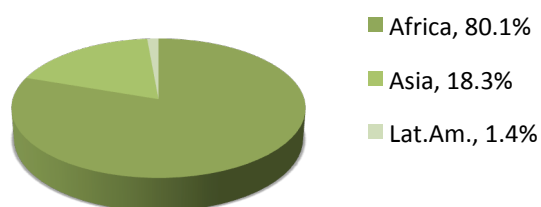


Figure 1. Distribution of allocations to regions 2008-2013 (%), indicating the increased focus on research groups and networks in Africa in the period (as described in the text). Allocations to two interregional chemistry networks in 2008 and 2009 accounted for 0.15% of the total allocations and are not included. (Lat.Am. = Latin America)

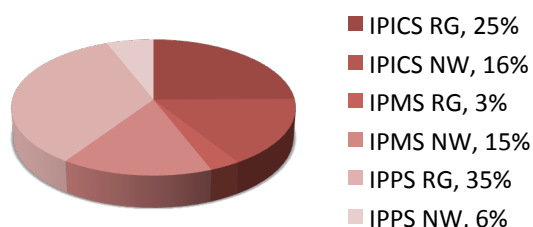


Figure 2. Distribution of allocations to programs and category of support 2008-2013 (%). The mathematics program (IPMS) has distributed 18% of the total allocations, and most of that to networks (83%). The chemistry (IPICS) and physics (IPPS) programs each distributed 41% of the total allocations, IPICS more than IPPS to networks. (RG = research group; NW = Scientific Network).

Other main activities. Within the frame of the core program an "International Conference on Regional and Interregional Cooperation to Strengthen Basic Sciences in Developing Countries", was arranged in September 2009,² separately funded by Sida. The presentations illustrated the variety of scientific networks, and the significance of organized networking was confirmed, to obtain a critical and creative mass of intellectual resources in the fields concerned; forming research links, sharing results, giving common training, exchanging staff and students, and accessing advanced instrumentation. In September 2011, the ISP 50th anniversary was celebrated by holding a seminar day in Uppsala.

ISP was evaluated by Sida and Uppsala University in 2011.³ Among the main conclusions were that the approach of ISP is very relevant, and well aligned with the Swedish policy for global development,

¹ Support to research groups in Laos continued in 2012 and 2013 using SU funding, although a physics PhD student was allowed to continue on Sida funding until graduation in 2014.

² "International Conference on Regional and Interregional Cooperation to Strengthen Basic Sciences in Developing Countries", Addis Ababa, Ethiopia, 1-4 September 2009, Ed. Christer Kiselman, Acta Universitatis Uppsaliensis, 88, 2011.

³ GHD (2011) Swedish International Development Cooperation Agency. Report on the Evaluation of the International Science Programme. (GHD Pty Ltd., Australia, see <http://www.ghd.com>).

as well as the international policy context, and that the research supported is at a high to satisfactory level with citations above world benchmarks. An important recommendation was to strengthen the monitoring and evaluation practices, not the least to meet Sida's requirements to implement results based management (RBM).

In 2012 a political science student wrote her thesis on the subject of ISP's cooperation in chemistry and physics in Bangladesh.⁴ She found that the good effects of ISP's work are due to the long-term support, the bottom-up approach, the untied grants, and the promotion of South-South collaboration.

Since 2012, ISP participates in the Minor Field Studies-program, offering fellowships to Swedish students to conduct academic thesis work at institutions in a number of developing countries.

In 2013, a strategic plan 2013-2017 was established, taking note of the recommendations in the evaluation of 2011, and establishing an RBM logical framework to facilitate follow-up in the coming years.

OUTCOMES

Expenditures and management. The total Sida contribution expenditures of groups and networks 2008 to 2013 were about 114.3 million SEK. Due to the fact that expenditures may lag behind each fiscal year, the grant allocation in one year may be added with a balance brought forward from the previous year, if justified. In the first year of the period, an allocation balance of 4.2 million SEK was brought forward from the previous period, as agreed with Sida. In the final year of the period, however, an allocation balance of 6.1 million SEK was carried forward and next year repaid to Sida. In all, 79.6% of the Sida contribution was made operative as expenditures by research groups and networks. The remaining 20.4% of the Sida contribution covered other core program costs, mainly management costs; ISP scientific coordination, program administration, common costs for students while in Sweden, and yearly revision.

In the 2011 evaluation, it was noted that 18.6%, as a weighted average of ISP's costs 2003-2010, were management costs including scientific coordination. Furthermore, it was observed, "from the evaluators' experience in other donor programmes and other countries, this is considered a relatively low level of management costs against the total programme". However, it was also noted "that ISP would need to invest more in monitoring and evaluation if it is to meet Sida's requirements for "results based management", and "that would then drive up overall management and overhead costs". The relatively low management costs within ISP is to a considerable extent due to the important contribution by Uppsala University, covering premises and part of the administrative and overhead costs, and costs for board meetings. The contribution from Stockholm University is not regarded here, but has allowed for the continued support to research groups in Laos, and, besides some management costs, has covered the development of collaborative activities of the Faculty of Science at SU and ISP.

⁴ Kuhn, T. (2012) The International Science Programme in Bangladesh: A case of self-interest, interconnectedness or social empowerment? Master Thesis in International and European Relations, Dept. Management and Engineering, Division of Political Science, Linköping University, 2012.

The modest increase in management costs 2008-2013, in comparison to the period subject to the 2011 evaluation, 2003-2010, may mainly be due to the additional time invested in developing a more results-orientated annual reporting, and a RBM-type monitoring and evaluation system, as requested by Sida.

Scientific production. Altogether, in the period, supported research groups and scientific networks have graduated 172 PhD students (59 of these in sandwich programs,⁵ the remaining locally) and 590 MSc/MPhil/Licentiate students (10 of these in sandwich programs). They have published 1,175 papers in scientific journals (Figure 3), given 1,371 contributions to scientific conferences, and arranged 273 scientific meetings. In 2010-2013, close to 40% of the publications were in high-impact journals, listed with Thomson-Reuters impact factors.

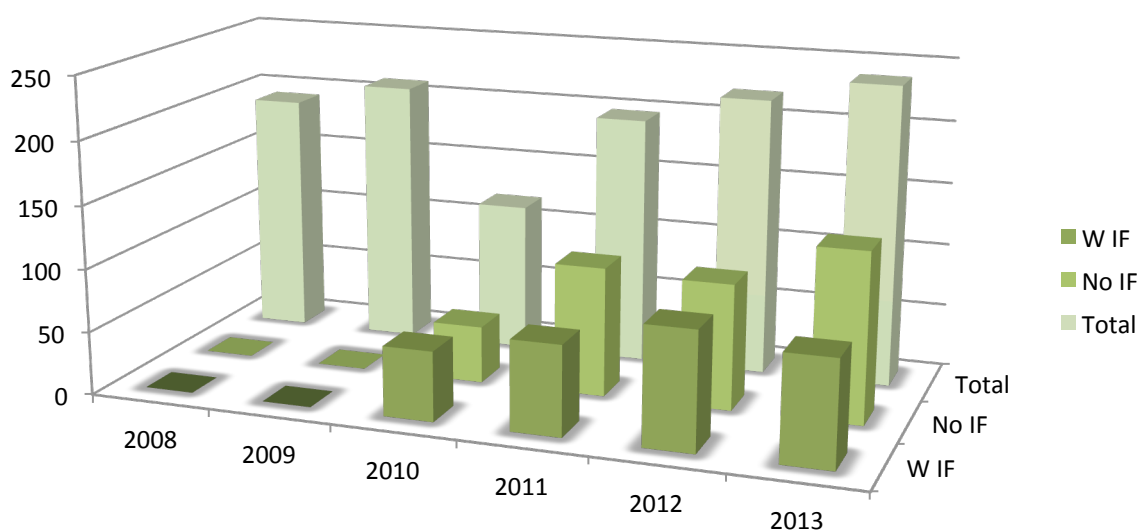


Figure 3. Total number of yearly publications by research groups and scientific networks 2008-2013, and yearly publications in scientific journals listed with Thomson-Reuters Impact Factors (W IF), or in non-listed journals (No IF) 2010-2013. (Listings were not recorded 2008-2009). The variation over the years to a degree reflects the number of groups and networks supported (Table 1), and is also influenced by phasing out productive groups and networks from support. Nevertheless, an increase in the yearly number of publications from 2010 to 2013 is indicated.

Summary of achievements. A summary of the achievements in the period can be presented as follows, the results given per each 10 million SEK spent by groups and networks:

- 15 PhD graduations, plus
- 52 MSc etc. graduations, plus
- 103 scientific publications, plus
- 120 conference contributions, plus
- 24 scientific meetings, conferences, schools, etc. organized.

The allocation expenditures have, concomitantly, been utilized to build, use, and maintain technical resources, and to carry out research implying using consumables, conducting fieldwork, etc.

⁵ A sandwich program implies that the student is based at the home department, but trains intermittently with a supervisor at a more resource strong collaboration group.

CHALLENGES AND LESSONS LEARNT

In 2008-2013, various challenges have been encountered in the operation and management of the core program. The temporarily reduced Sida funding, 2008-2010, and sometimes very short-term extensions of the agreement, have required time-consuming efforts to address. However, these challenges have been overcome and the final outcome has been successful.

Considerable efforts have been devoted to the harmonization of program operation, unifying the management routines of the physics, chemistry and mathematics.

An important lesson learnt is that the previous monitoring and evaluation system has not fully met contemporary international standards, which partly has obscured the effects and impacts of the core program – in particular beyond the more easily accessible graduation and publication records. This has been increasingly addressed since the later half of the period, for example in the yearly revisions of the activity reporting forms provided to research groups and networks. As a result of these revisions, a more comprehensive reporting has been developed, comprising for example publication quality, and records of outreach activities to the public and to policy makers. This will be accounted for in more detail in the previously mentioned in-depth report for the period. In addition, ISP staff has been reinforced to allow for the continuous development of the monitoring and evaluation system, as well as for conducting evaluations, tracer and impact studies.

Throughout the years, ISP has been assigned by Sida to coordinate and administrate components in bilateral programs with universities in Sida's partner countries. This is an important task that gives rise to synergies. The experiences of the operation of the core program are valuable for the engagement in Sida's bilateral programs and vice versa. In addition to this, the challenge of temporarily reduced Sida core program funding has generated efforts to diversify ISP's financial resources. The lesson learnt so far is that it is not easy to attract complementary funding to the core program, and that all new partnerships require considerable time and efforts in particular in the start-up phase, but also on longer term. As a matter of fact, all new assignments and new partnerships, no matter how welcome and justified they are, have implied relatively less focus on the core program, which has affected its operation and not the least the time available for follow-up and reporting. To continue developing the core program under these conditions remains to be a challenge.

FUTURE PROGRAM DEVELOPMENT

In 2014, a new agreement between Sida and Uppsala University was signed, for the continued support of ISP's core program during 2014-2018. Following the strategic plan 2013-2017, important development activities of the core program in this period are; a strengthened promotion of gender equality; improved evaluations, tracer, and impact studies; and securing complementary funding as well as quantifying co-funding and in-kind contributions by supported groups and networks, and by their collaborators.