

Proposed ISP working strategy in 2009-2010 in perspective of the Sida decision in 2008 on two years of continued support, until June 2010, and required changes in working mode

Executive summary

The Sida grant to ISP core activities is reduced from 27 MSEK 2007, to 24 MSEK 2008, and 20 MSEK 2009, concomitantly with an expected increase of ISP commitment to Sida bilateral (and regional) support to developing countries.

ISP support to research groups will gradually be limited to those five of the twelve countries, with which Sweden will pursue long term development cooperation, that are not yet subject to bilateral agreement; Kenya, Mali, Zambia, Bangladesh and Cambodia. To complement current ISP support in these countries the following activities are proposed, in close cooperation with concerned Sida staff, and considering existing strategies and thematic focus areas:

- Kenya: In 2009 the possibility is investigated to expand support in the field of chemistry to University of Nairobi.
- Mali: In 2009 the possibility is investigated to develop support to physics research at University of Bamako.
- Mali: In 2009 the possibility is investigated to expand the regional mathematics network that is coordinated from Burkina Faso to comprise mathematicians at University of Bamako.
- Zambia: In 2009 the ISP mathematics program works for a connection of Zambia to the EAUMP network.
- Zambia: In 2009 the possibility is investigated to develop support to chemistry research at University of Zambia.
- Bangladesh: In 2009 the need for and possibility to support capacity development in mathematics at University of Dhaka.
- Bangladesh: In 2009 the possibility is assessed for capacity development in physics at institutions in addition to those already supported.
- Cambodia: In 2009 ISP prepares a proposal for reinforcement of the capacity for research and development in chemistry at Royal University of Phnom Penh (RUPP).
- Cambodia: In 2009 the mathematics program of ISP works for development of the MSc program in mathematics at RUPP, in cooperation with other countries in the region.

ISP support to regional networks and resource centers is to be evaluated after a workshop on regional cooperation planned to be held in late August or early September 2009.

In cooperation with Sida, ISP will develop a working mode to optimize the outcome, e.g. with regard to scientific quality and cost efficiency, when contributing to the implementation of Sida support to Science Faculties at universities subject to bilateral agreements. This work is commenced as soon as possible in order to define the role and expected contribution of ISP in the process – in parallel with the current process to transfer ISP-supported research groups in countries with bilateral agreements to the new bilateral programs expected to come into operation in these countries.

1. Background

Under the current ordinance UHÄ-FS 1988:18; SFS 1992:815 Uppsala University may host a unit, called International Science Programs, Uppsala (in the following abbreviated as ISP). According to the ordinance the task of ISP is to initiate and support long-term collaboration in research with institutions in the developing countries. In the ordinance the Board of Uppsala University is commissioned to issue additional regulations needed for the activities, to be handed in to the Ministry of Education.

Uppsala University has issued additional regulations in the shape of an instruction. In the instruction, most recently revised in 2003, the purpose of ISP activities are defined as building research capacity at universities and research institutes in the Third World, and to promote regional cooperation.

The ISP field of work is currently confined to the basic sciences physics, chemistry and mathematics. The ISP mode of operation has been developed and evaluated as has been described in i.e. Lindqvist (2001), in ISP's strategy plan 2003-2007, in ISP's annual reports, and in the most recent ISP application to Sida/SAREC.

2. Current situation and significance of Sida's decision on continued support to ISP

An assessment MEMO (Sida 2008), clarifying Sida's position on the ISP application, was decided upon by the Council for Research Cooperation on 10 June 2008. In this assessment, the expected changes in ISP's mode of operation required by Sida are outlined. One expected outcome is a closer and more integrated cooperation between ISP and Sida in bilateral support to research development. The required change in the ISP mode of operation implies that the Sida support to ISP core activities is decreased (from 27 MSEK in 2007, to 24 MSEK in 2008, and 20 MSEK in 2009), and that the engagement of ISP in Sida's bilateral (and regional) support to research in developing countries is expected to increase.

2.1 Sida's decision on ISP's work on support to research groups

The decision, among other things, brings about the following restrictions to ISP direct support to research groups:

1) *ISP can only support research groups in the twelve focus countries appointed in the government's new development support policy* (Ministry of Foreign Affairs, 2007) and subject to long-term development cooperation. These countries are, in Africa: Burkina Faso, Ethiopia, Kenya, Mali, Mozambique, Rwanda, Tanzania, Uganda and Zambia; in Asia: Bangladesh and Cambodia; and in Latin America: Bolivia.

ISP's current support to research groups in countries not belonging to this group is currently phasing out, and will be terminated by 2010. These countries are: Ghana, Cameroon, Laos, Malawi, Nigeria, Peru, Sri Lanka and Senegal.

In 2008 ISP supports research groups in nine of the twelve "focus countries": Bangladesh, Burkina Faso, Ethiopia, Kenya, Cambodia, Mali, Tanzania, Uganda and Zambia.

2) *In focus countries where Sida operates bilateral programs aimed at support of university and research development, the research groups currently having direct ISP support should be supported within the Sida bilateral programs.* Today, Sida has bilateral

research programs in seven of the twelve focus countries: Burkina Faso, Bolivia, Ethiopia, Mozambique, Rwanda, Tanzania and Uganda. Currently, ISP is directly supporting research groups, in parallel to the Sida bilateral programs, in Burkina Faso, Ethiopia, Tanzania and Uganda.

The Sida decision implies the groups directly supported by ISP in Ethiopia, Tanzania and Uganda will be transferred to bilateral support from 2009, and in Burkina Faso from 2010. However, it is stressed in the Assessment MEMO that it is the units receiving Sida bilateral support that decide the content and direction of the program. In parallel with this, Sida/SAREC representatives have guaranteed that no student in the groups currently having direct ISP support and that are to be transferred to support in bilateral programs will be negatively affected by the transition. This has been expressed e.g. in email correspondence: "Ongoing research training of PhD/Masters students already in an ISP financed programme should be allowed to come to completion" (Akuffo, 2008). Since this consequence of the Sida decision has become known, ISP has been working on informing the Sida officers responsible for the countries affected, as well as coordinators, administrators and researchers at the corresponding universities. However a number of practical questions regarding this process remain to be solved.

The five countries in which ISP can still offer direct support to research groups are Kenya, Mali, Zambia, Bangladesh and Cambodia, where according to the Assessment MEMO a limited number of research groups can be supported. In consequence with the Sida decision this remains valid until the year when bilateral research cooperation comes into operation. Regarding ISP activity in these countries, it has been pointed out as a difficulty that Sida has not yet decided on any guiding country strategies. However, ISP direct support to basic sciences is acceptable if ISP follows the principles for Sida bilateral cooperation (Kjellqvist, 2008) and is in accordance with the thematic areas that are guiding to Sida and have been agreed between the African and European Unions: solar energy research, information technology and space technology. It is reasonable to regard also the Government's prioritization of the environmental field, and climate change (Ministry of Foreign Affairs 2008).

In 2008 all ISP subprograms supported activities in Kenya (IPMS in the form of network support), IPICS in Mali, IPPS in Zambia, IPICS and IPPS in Bangladesh, and IPPS in Cambodia (Table 1). The extent of activities may be seen as a result of the age of each program, IPPS commenced in 1961, chemistry in 1970, and mathematics in 2002.

Table 1. ISP's current presence (X) and support to research groups in physics (IPPS), chemistry (IPICS) and mathematics (IPMS) i) in the five countries to which ISP direct support is limited after (at least until the countries are subject to bilateral Sida support programs. More details in section 3.1)

Country	IPPS	IPICS	IPMS
Kenya	X	X ¹	X ²
Mali		X	
Zambia	X		
Bangladesh	X	X	
Cambodia	X		

¹ The supported activity has its head office in Zimbabwe.

² The supported activity is part of an East African network.

2.2 Sida's decision on ISP support to networks and resource centers

The decision implies that ISP support to network and resource centers can continue under the agreement period, but the activities in question should be further defined, and prioritized. Also, these usually regional activities should to the extent possible be supportive of bilateral and regional programs supported by Sida.

2.3 Sidas beslut om utveckling av samarbete med ISP rörande bilaterala program

The Assessment MEMO also refers to the dialogue between Sida and ISP during 2006 and 2007, about how ISP can take responsibility for faculty development programs within the frame of Sida bilateral agreements and how ISP experiences can be of use to this end. Already today, ISP has considerable responsibilities in the function as coordinator in several Sida bilateral programs (see e.g. ISP Annual Report 2007). The decision allows for a further development of Sida-ISP collaboration. Among other statements is the following:

”During 2008 and 2009, preparation of research support to Uganda, Mozambique, Tanzania and Ethiopia will be performed. In these preparations of research support, ISP has an opportunity to reformulate and change their ways of operation and adjust to the Sida supported programmes. Here, ISP also has a possibility for faculty development at large. If the incorporation turns out successful, ISP can use its experiences in their support to networks and resource centres as well as research groups outside Sida supported bilateral university programmes.”

3 Proposed ISP Working Strategy 2009-2010

Taking the starting point in the Sida decision, the activities proposed to be carried out during the current agreement period are sketched below. These pertain ISP's work with research groups, networks and resource centers, and the further development of ISP cooperation with Sida in Sida bilateral support programs. The proposed activities take into account the changed prerequisites to ISP activities and the required changes in ISP's working mode.

3.1 Support to research groups

One consequence of the Sida decision is that ISP can continue operating with direct support to capacity development and enhancement to research and postgraduate education in the basic sciences physics, chemistry, and mathematics – but limited to five of the twelve focus countries: Kenya, Mali, Zambia, Bangladesh and Cambodia. This can continue at least to the point in time when Sida establishes bilateral support programs in these countries.

The working strategy for ISP activities with regard to research groups in these countries is proposed to be to develop capacity in physics, chemistry and mathematics as far as possible. The line of this work should be in agreement with the relevant policies and strategies on national as well as on the university level, and with Sida policy, guidelines and thematic focus. The purpose of ISP support is in this case to contribute to strengthening the capacity in basic sciences in order to provide an as solid base as

possible once Sida bilateral support programs are to be established. The following actions are planned.

Kenya: ISP supports in the field of physics research groups working with solar energy, at University of Nairobi (since 1998) and Moi University, Eldoret (since 2005), and at University of Nairobi working with nuclear physics with environmental applications (since 1991) and laser physics (since 2007). Mathematics is supported within the network East African Universities Mathematics Programme (EAUMP; since 2002). In chemistry ISP supports a research institute, having its head office in Zimbabwe, on the field of medicinal chemistry, physiology and biotechnology (since 2007).

Proposal:

1) In 2009 the possibility is explored to expand support in chemistry to University of Nairobi.

Mali: ISP supports in the field of chemistry a research group at University of Bamako, developing research in mineralogy with applications in environmental and materials research (since 2002).

Proposal:

1) In 2009 the possibility is explored to expand support in physics to University of Bamako.

2) in 2009 the possibility is explored to expand the regional network in mathematics (hydrological modelling, e.g. of Senegal River, flowing from Mali) coordinated from Burkina Faso (and supported since 2003) to include mathematicians at University of Bamako.

Zambia: ISP supports in the field of physics a research group working with solar energy (since 1988). In mathematics discussions have been initiated and contacts created with the EAUMP network. There is currently no support in chemistry, but from the Department of Chemistry at University of Zambia contact has been expressed as desirable.

Proposal:

1) In 2009 IPMS works for the connection of mathematics at University of Zambia to the network EAUMP.

2) In 2009 the possibility is explored to expand support in chemistry to University of Zambia.

Bangladesh: ISP supports in the field of physics research groups working with nano materials science at Bangladesh University of Engineering and Technology and the Atomic Energy Commission, Dhaka (since 1980), and in the field of chemistry a research group in environmental chemistry at University of Dhaka (since 2006, preceded by support to natural products chemistry since at the same department since 1977).

Proposal:

1) In 2009 the need and possibility is explored further capacity development in mathematics at University of Dhaka.

2) In 2009 the possibility is assessed to support capacity development in physics at institutions in the country other than those currently supported.

Cambodia: ISP supports in the field of physics basic activities in the development of research and postgraduate education at Royal University of Phnom Penh (RUPP; since 2006). In chemistry (2008) and mathematics (2007, 2008) initial discussions have been held, and the need and prerequisites for development of support on both fields have been identified. The RUPP Department of chemistry has, since a number of years, a fruitful, independent cooperation with the Institute of Applied Environmental Research at Stockholm University, which among other benefits has resulted in a considerable improvement of the analytical chemistry equipment in place.

Proposal:

- 1) In 2009 IPICS and Faculty of Science at RUPP suggests activities to reinforce the development of capacity of research and postgraduate education at the Department of chemistry.
- 2) In 2009 IPMS works for further development of the MSc program in mathematics at RUPP, in regional cooperation with e.g. Asian Institute of Technology (AIY), Bangkok, Thailand, and Vietnamese university departments.

The proposed development activities are planned to be carried out in close cooperation with concerned staff at Sida.

3.2 Support to networks and resource centers

In agreement with Sida, a closer definition of network activities will be carried out in connection with a workshop on regional cooperation in basic sciences, planned to be held in Addis Ababa, Ethiopia in the beginning of September 2009. Principles and plans for future network and resource center support are to be developed after the workshop.

3.3 Development of ISP cooperation in Sida bilateral support programs

As far as can presently be forecasted, future ISP activities will comprise network and resource center support and a closer cooperation with Sida in the development of capacity for research and postgraduate education in developing countries. The latter will gradually substitute present ISP direct support to research groups.

From the perspective of Uppsala University it is essential that the contribution of ISP to development of research capacity also in the future has a pronounced scientific component. That is, that the scientific competence at ISP, and the more than 45 years of experience of research capacity development that is at hand in the ISP program, are essential in the continued cooperation. ISP is looking forward to develop its mode of operation, in cooperation with Sida, in order to contribute in the best way possible to high scientific level and cost efficiency in the advancement and implementation of Sida support to Science Faculties in bilateral – and regional – support programs.

The contribution of ISP with regard to basic sciences can be:

- to function as scientific advisor to the bilateral partner in the application process,
- to coordinate peer review of applications,
- to assess the proposed bilateral programs in perspective of the development level of the university subject to support,

- to identify potential collaboration partners and co-supervisors for MSc- and PhD-students in sandwich and other postgraduate educational programs, based on all Swedish universities and if necessary universities abroad,
- to contribute to scientific assessment at Annual Review, etc.,
- to carry out scientific evaluation of bilateral and regional cooperation.

In the Assessment MEMO, the ambition is expressed that ISP shall adapt its mode of operation in connection with the current preparation of renewed bilateral agreements with Uganda, Mozambique, Tanzania and Ethiopian. To put this ambition in practise, the cooperation between Sida and ISP must be intensified. This must commence already during the last months of 2008 in order to ensure well functioning forms of cooperation in these programs. ISP is looking forward to the discussion about its role and expected contribution to the process – in parallel to the ongoing transfer of ISP-supported research groups in Ethiopia, Tanzania and Uganda to the renewed bilateral support programs that are expected to become operational there in 2009.

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