

# RESEARCH CAPACITY BUILDING IN DEVELOPING COUNTRIES

## Some Comments Based on SAREC's Experience

Ann Mari Fallenius  
Swedish Agency for Research Cooperation  
with Developing Countries (SAREC),  
Stockholm (Sweden)

The objective of the following presentation is to discuss three important issues in connection with SAREC's support to research capacity building. First, the SAREC policy for support to research capacity building and the model of institutional cooperation are described. Secondly, an overview is made of SAREC's plan of action for university support. Finally, the need for cooperation between donors is emphasized.

When SAREC started its activities in 1975, the support to the building of research capacity in developing countries was the central task and objective of the new organization. The strengthening of national research was seen as a prerequisite for self-reliance and national development and as a key factor if developing countries were to participate in international, scientific cooperation.

SAREC's support has changed in both form and scope since it began twenty years ago. At that time almost 90 per cent of the budget went to the support of international research programmes. Today the emphasis is on support to bilateral research programmes, regional research programmes and special initiatives. Currently, SAREC has bilateral agreements with fourteen countries and the bilateral support accounts for one third of SAREC's budget, which amounts to about 60 million dollars per year.

SAREC's bilateral cooperation is focused on research capacity building, primarily in some of the least developed countries in Africa. Some of SAREC's regional and special programmes have a similar focus. On the other hand, the international programmes are usually oriented towards generating research results which, although vitally important for the developing countries, do not primarily contribute to capacity building.

### **Institutional Cooperation: a Model for Bilateral Cooperation**

Decades of experience indicate that neither expatriate recruitment of staff for the local institutions, nor the training of students for long periods abroad, can by them-

selves achieve the goal of sustainability in capacity building. SAREC has therefore chosen a model that on the one hand firmly establishes the capacity building process in the research departments of the developing country itself, and on the other encourages the forging of links with Swedish institutions.

The SAREC model of building research capacity is centred around institutional cooperation between research departments in developing countries and in Sweden.

Institutional cooperation as part of SAREC's bilateral programmes has developed fast during the past decade. The number of Swedish research departments participating in such cooperation has grown from 40 in 1982 to around 110 today. At the same time a total of 220 research institutions in developing countries participate in our bilateral programmes.

According to the model, the training of researchers is planned by the cooperating institutions within the framework of joint research projects at PhD or Master levels. The training programmes or schemes usually follow what is called the "sandwich model". This means that the training period is "sandwiched" between the home country and Sweden. Part of the year the research student spends in his/her own country, doing field research, and part of the year he/she spends in Sweden taking courses. Research students are jointly supervised by senior scientists from both countries. The institutional cooperation usually also means that the Swedish departments assist their collaborating partners in developing countries to purchase scientific equipment and literature. SAREC also supports the development of national capacity for training of researchers, i.e. in the form of setting up post-graduate courses in various fields in the developing countries themselves.

One problem with the SAREC model is the relatively high cost for the participation of the Swedish institutions. The cost-effectiveness of institutional cooperation and especially the training of researchers could be an important issue for comparative studies. The sandwich model of training with short periods in Sweden and the main field work carried out in the home country could be compared with for example:

- 1) traditional scholarship programmes for extensive training abroad,
- 2) training provided by universities or faculties in the developing country and
- 3) training in the region of the developing country at centres for advanced studies and research.

What are the results of SAREC's support to capacity building? When supporting research capacity building, SAREC aims to create good opportunities for research in terms of viable environments where good quality, sustainable research can develop. It is an activity that is not easy to measure, but is rather a long-term investment from which results of any significance cannot be expected until after many years.

In order to account for the results of the support, SAREC sent out a questionnaire in the spring of 1994, addressed to project coordinators within SAREC supported programmes. Questions were raised concerning capacity building, research reporting and on performance indicators such as the number of students being involved in post-graduate training, courses being arranged, the number of scientific publications and so on.

SAREC is now in the process of compiling and analysing the results. A survey of this kind will henceforth be sent out on an annual basis. It is very difficult to evaluate the results of such a survey. For one thing it does not say anything about the quality of the results and its long-time effects.

However, from a gender point of view the survey indicates some interesting results. No less than 43 per cent of the students are women who during the last two years have been engaged in research training within SAREC supported programmes. Furthermore, 42 per cent of the students who finalized their PhD in SAREC supported programmes during this period are women. From a gender point of view these figures seem to be better than comparable figures concerning women's participation in post-graduate programmes in Sweden. This outcome may be a result of the design of these post-graduate programmes, which makes it possible for the research students to carry out a major part of the research work and training in their home country or in the region of the developing country. This may benefit women's participation.

### **Plan of Action for University Support**

The deepening crisis of universities in countries south of the Sahara has prompted SAREC to initiate a plan of action for university support. The rationale behind this support is outlined in a recent SAREC/SIDA document: "The ownership and cultivation of knowledge".

The most conspicuous indicator of the crisis is the lack of internal resources for research and higher education such as inadequate text books, run-down libraries, teaching rooms and laboratories, overcrowded student residences, low wages for the teachers.

Another serious feature of the crisis, which all donor organizations are very much aware of, is the brain drain of researchers and teachers away from universities. The problem of key personnel leaving their jobs for better opportunities elsewhere is not unique to science and higher education. Many government agencies in the South face the same difficulties. However, it is highly detrimental to the quality of research, to education and to capacity-building efforts.

The causes differ. However, too low salaries are very often singled out as an important factor. Poor infrastructure and equipment are other important elements as well as the often meagre possibilities for international contacts as compared to academia in Europe and North America.

The crisis undermines the general conditions for research and leads in turn to a decline in the quality of education. In many places there are pockets of very interesting and useful research. However, these research environments can very often be characterized as "isolated islands", completely dependent on external support and cooperation.

The universities' ability to plan and manage their own affairs is made difficult by the tight and unpredictable financial situation and the very high dependence on external contributions. Donors often establish special structures for the administration of support to projects. This means that there is little opportunity for the universities' own administrative capacity to develop.

Considering the present situation SAREC has chosen a broad approach in its plan of action for university support. A precondition for this is a supportive policy background in the country concerned. *First of all* there must be a genuine interest for university development on the part of the government in question and a reasonable allocation for the educational sector as a whole.

A *second* concern is the tendency in some countries to spread scarce resources over too many institutions. According to SAREC a donor policy should be to support "quality before quantity". Donors should refrain from supporting the establishment of new universities and colleges, which takes place in a number of countries despite the lack of internal financing.

In the SAREC plan of action for university support three key areas have been identified: support for institutional capacity, support for research capacity and university-based post-graduate programmes and regional support.

1. Support for *institutional capacity* includes support for planning and administration for development. The aim is to strengthen the management capacity of the universities, involving the basic task of developing a long-term plan for the university. The SAREC philosophy is that support to universities will not be constructive unless the universities themselves can take responsibility for the planning and coordination of their own resources.
2. Support for *research capacity* includes support to research training and qualified research and also support to the development of faculty programmes of research. This may be an effective way of developing research environments with their own training programmes and research traditions.
3. Support for the development of postgraduate programmes is an important element in the development of an attractive research environment and can be a basis for *regional cooperation*. Regional research cooperation between universities should be supported with travel funds, grants and scholarships and so on.

### **Coordination between Donors**

If there is a true interest in capacity building, coordination of donors is essential. However, few donors have so far been prepared to let their support be coordinated by the receiving institution. They have been reluctant to provide flexible support and they are often restricted by their mandates and areas of interest.

Can the donors defend the use of tax-payers' money to support hundreds of national projects with little or no coordination and little or no sense of ownership on behalf of the recipient country? To take one example: in 1990/91 some 20 different donors provided around 10 million dollars to support some 150 agricultural research projects in Tanzania.

The many consequences of these different projects include duplication, lack of overview and coordination and – for Tanzanian scientists – a general sense of being run by donors rather than by national plans. The need for increased cost efficiency calls for scrutiny of the ways to delegate coordination and powers to national agencies.

Eduardo Mondlane University in Mozambique tried to solve this problem by presenting a strategic plan as a basis for negotiations with the government and national inter-

est groups as well as with external agencies. Some donor agencies have supported this effort and also agreed to accept financial reports audited by an internationally recognized auditor.

SAREC has commissioned a special study by Dr. David Wield at the Open University, United Kingdom, on funding policies and donor reporting requirements. Wield's conclusion is that donors have different approaches in different universities and also within the same university in different departments and institutions. Donors also change their systems quite regularly. External support is often implemented in relation to policies developed by each donor agency rather than integrated into a properly formulated university development plan. Consequently universities spend considerable time and effort trying to meet the various reporting requirements of donors which lower their ability to coordinate donor support as well as weaken their management capacity.

This is an area where cooperation among donors is important. Furthermore, the donors ought to take into consideration how the support fits into a planned development. Donors could make useful contributions i.e. by starting to negotiate support in relation to an overall plan for university development.

In conclusion, SAREC's basic principles for choice of cooperation programme are:

- to concentrate support to some least developed countries, mainly south of the Sahara;
- to be responsive to cooperation partners in developing countries as to which areas of research to support;
- to support research capacity building through institutional cooperation on a sandwich basis;
- to strengthen the institutional framework within which the research capacity building takes place;
- to support the development of management capacity; and finally
- as far as possible delegate programme management and coordination to national agencies and receiving institutions.



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