



Swedish research cooperation with developing countries- Nicaragua as an example

By Ove Stephansson

Sweden has one of the most important aid programmes of the Western countries. One of the institutions through which this aid is given is SAREC, the Swedish Agency for Research Cooperation with Developing Countries. Ove Stephansson looks at the present SAREC programme, with a particular emphasis on the cooperation with Nicaragua.

Ove Stephansson is Professor of Rock Mechanics at the University of Luleå. He is a member of the Board of SAREC and of the Editorial Advisory Board of Raw Materials Report.

A national research capacity is important in many ways. It is a prerequisite for research into the genuine problems of a country, and for its ability to translate this research into national needs.

The main objective of the *Swedish Agency for Research Cooperation with Developing Countries (SAREC)* is to support developing countries in their endeavours to strengthen their research capacity.

The support given by SAREC takes a variety of forms. A large part of the budget is devoted to *financial support of international research programmes*. These programmes usually entail research aimed at achieving general results relevant to many developing countries. The research is essentially long-term. SAREC also supports *regional research cooperation, research exchange and special programmes* in selected areas. An important and rapidly expanding part of SAREC's programme is *direct cooperation with developing countries*. Support to strengthening domestic resources in a country must focus on realistic targets and be tailored to the specific conditions of the country concerned.

SAREC's cooperation with individual developing countries is based on an agreement with a central research council or a corresponding organisation. This agreement defines the financial and organisational framework for the cooperation and is based on a dialogue concerning national research priorities. This ensures direct contact between SAREC and the national organization responsible for research planning, international scientific exchange and coordination.

At present SAREC's bilateral research cooperative programme includes fourteen developing countries: Botswana, Cape Verde, Cuba, Ethiopia, Guinea-Bissau, India, Mozambique, Nicaragua, Somalia, Sri Lanka, Tanzania, Vietnam, Zambia and Zimbabwe. Cooperation with some of these countries has been in progress for a considerable time, while with others it has recently begun.

SAREC and Nicaragua

For readers of Raw Materials Report it is of interest to follow the situation in Nicaragua. Research cooperation with Nicaragua began in February 1982. This cooperation is being coordinated by the *Nicaraguan International Reconstruction Fund (FIR)* and covers the following fields.

Activities in the field of geology and mineralogy have comprised the planning of a chemical analytical laboratory mainly for mineral analyses, and the compilation of lists of equipment for the same, together with a pilot project for developing a prospecting strategy. The laboratory stage has been concluded and the research report has been used as a basis for building up and equipping the laboratory itself. The first stage of a central laboratory in Managua was opened in March 1983.

The project on prospecting techniques has proceeded according to plan. Results concerning methods of locating gold-bearing quartz veins have been used by a current project and will also influence development assistance projects from other countries in the mining sector. This research is being conducted by the *Nicaraguan Ministry of Mining* in association with the *Swedish Geological Company, Luleå*.

In the agricultural sector, SAREC is supporting research and experimental activities on beans, with the aim of evolving improved genetic material. This work is being undertaken in contact with other institutions, including the *International Centre of Tropical Agriculture (CIAT)*, Colombia, through the collection and further selection of native bean material and by means of cultivation experiments.

Research cooperation in the energy sector covers solar energy and solid fuels. The *Nicaraguan Energy Institute (INE)*, acting in cooperation with the *Swedish Meteorological and Hydrological Institute*, has installed a system of gauging stations which will eventually facilitate solar mapping of Nicaragua. This in turn will

