

Self-Reliance Through Regional Co-operation

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Article 52 of the Charter of the United Nations is concerned with the usefulness of Regional Arrangements which "are appropriate for regional action." Such arrangements need not be considered only with regard to their political aspects but also as organizational structures which can be helpful in the development of science and technology in less-developed countries. The definition of a "Region" can be difficult, but is easier if scientific rather than political co-operation is intended.

The development of science in less-developed countries (LDCs) is a very irregular and variable process. It depends partially on individual scientists who become outstanding experts in their special fields, partially on funds which have been made available for special projects, it is partially due to national or local interests in special areas of science, and to many other factors. As a result LDCs usually do not have the broad spectrum or capability in scientific disciplines which one expects in developed countries (DCs), but they have potentials in specific fields where they often reach international standards. This is also the case with laboratory equipment and experimental and technical facilities available in LDCs.

The idea of regional co-operation in science and technology is based on this situation. Combining the limited potentials of various LDCs in one region may lead to an overall increase in scientific strength and can contribute to an accelerated development of science, eliminating or at least reducing external support from DCs.

ARGUMENTS FOR REGIONAL CO-OPERATION

Countries in a region may have common interests due to similarities in climate,

geography and economic structure. Therefore it should be possible to define projects of practical benefit to all of them for which joint scientific efforts are necessary. The present situation is characterized by a considerable lack of information between LDCs in the same region on their own scientific potential. For example, in the field of Nuclear Science and Technology the experts in a LDC "X" may be well-informed on the work done at Oak Ridge (USA), Harwell (UK), Saclay (France), Karlsruhe (F.R. Germany) etc., but not necessarily on what is going on in their neighbour country "Y" at a distance of only a few hundred miles. If an intensive exchange of information would take place they might find that the special "knowhow" they are looking for may be available much closer to home, perhaps from an expert who has been trained abroad in one of the centres mentioned above, but who has continued his work with special emphasis on regional problems.

Such regional experts may often be better disposed towards further dissemination of their experience to neighbouring countries than experts from abroad. They are aware of the local problems which arise due to climatic conditions, lack of services, insufficiently trained personnel, and so on.

An exchange of scientists might be established in a region based on mutual acceptance of hospitality; travel costs would be considerably reduced against those to far-off DCs.

Expensive equipment might be much better used on a regional basis, and applications for new equipment will be more favourably received by funding institutions if intensive use will be guaranteed through regional co-operation.

The main argument of course is the fact that this type of co-operation will lead to a higher degree of self-reliance in a region and often to a level of research and technology which may then become competitive with DCs.

BARRIERS TO REGIONAL CO-OPERATION

Besides political barriers* – sometimes conditioned by the on-going influence of former colonial powers – there are some evident psychological factors which might inhibit regional co-operation. There is the deep-rooted feeling that real excellence – even in very limited areas of science – can only be found in the temples of internationally approved science in highly developed countries. This idea is connected with the belief that successful research can only be done if a wide choice of sophisticated equipment is available. If that were true, the training of experts from LDCs in DCs might be senseless as long as they cannot transfer these working conditions to their home country.

It is understandable that for young scientists in LDCs contacts and visits to scientific institutions in DCs have more appeal than travelling or staying in their own region.

The reasons for this tendency are often not merely scientific. However, it might be a challenge if these scientists, when they go to a DC, can represent more than a national interest. This can be achieved if they have taken full note of the regional potential in their field before they go abroad.

Of course it will also be difficult to overcome national ambition. Often neighbouring countries are competitive and are tempted to give clear proof of their superiority over one another in as many fields as possible. The best way to surmount this obstacle is specialization. It is indeed the concept of regional co-operation that each country concentrates on limited goals to the advantage of the region, but at the same time benefits from the activities of other countries in the region. This is the way in which scientific co-operation within a nation works if the national potential is broad enough to cover a wider spectrum of disciplines.

It might be dangerous if the level of development is rather different between the countries in a region. In that case co-operation should be limited to countries of roughly comparable standard in science and technology. Guidance might be given by neutral international organizations rather than by single outstanding countries. As reasonable regional co-operation may provide a more accelerated development, differences might be levelled in the course of time.

THE RCA AS AN EXAMPLE

The International Atomic Energy Agency has undertaken a first step in this direction through its Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology in South and Southeast Asia, the Pacific and the Far East (RCA) which has been signed by six countries so far. This Agreement leaves it to the Member States to initiate co-

* Cf. F.G. Torto, Proc. of the XXII Ird Pugwash Conference, Aulanko, Finland p. 399

operative projects. The IAEA will take steps to establish the project if at least three Member States are willing to participate. The implementation of the project will be defined by negotiations with the Member States and the IAEA will only play the role of a co-ordinator.

Annual meetings of representatives of those countries which are parties of the RCA and of others from the region which might be interested in joining the Agreement provide the possibility of a continuing exchange of new ideas.

Regional activities are also undertaken by means of "Co-ordinated Research

Programmes," which mostly include some co-operation with DCs.

The RCA has initiated two new ideas, that of carrying out the projects exclusively by the countries of the region and that of taking the step from co-ordination to co-operation by means of continuous and intensive exchange of information as well as of personnel. Its main objective is to aim at a reasonable division of labour between the parties and to use expensive equipment jointly. It is to be hoped that this venture will lead to an increasing degree of self-reliance within the region concerned. If so, other regions might follow the example.

Co-operation at the local level is illustrated by these workers in Columbia, Latin America.

