





Advisory Council
for Scientific
Research in Development
Problems



Towards a European Science and Technology policy for development



Publication no. 13

RAWOO Towards A European Science and Technology policy for development

Towards a European Science and Technology policy for development

Publication no. 13

RAWOO is the Advisory Council for Scientific Research on Development Problems. RAWOO was established at the request of the Minister for Development Cooperation, also on behalf of the Minister of Education, Culture and Science, and the Minister of Agriculture, Nature Management and Fisheries. Its mission is to advise the government on matters of policy related to research in the area of development problems, and to keep the government informed of developments in this area.

RAWOO is part of the system of advisory councils for research (Sector Councils) which the Dutch government set up in order to provide it with advice on how scientific research can best be attuned to the needs of society. In the case of RAWOO, the needs in question are those of societies in developing countries.

The Council has nine members including the chairman, plus one advisor from each of the three ministries. The members are appointed as individuals rather than as representatives.

Council membership (till 30 June 1996):

Prof.dr. E.J. de Kadt (chairman)

Members:

Dr. J. Bunders

Prof.dr. L. Reijnders

Prof.dr. E.J. Ruitenber

Prof.dr. W.A.L. Stokhof

Prof.dr. I. Wolffers

(three vacancies)

Advisors:

Dr. J.E. van Dam

Ir. M.L.E. Jansen

Prof.drs. J.G. Waardenburg

RAWOO

Kortenaerkade 11

P.O. Box 29777

2502 LT The Hague

The Netherlands

tel. + 31 70 4260331

fax: + 31 70 4260329

E-mail: rawoosec@nufficcs.nl

Web address: <http://www.nufficcs.nl/ciran/rawoo>

© 1996

Advisory Council for Scientific Research in Development Problems (RAWOO), The Hague

ISBN 90-71367-22-3

November 1996

Towards a European Science and Technology policy for development

Publication no. 13

Contents

Preface 4

Summary 5

1. Introduction

- 1.1 Background and objectives
- 1.2 Structure of the report

2. Basic principles of policy on research for development

- 2.1 Sustainable development
- 2.2 Global and local problems
- 2.3 Relevance for development

3. Analysis of current problems and policy issues

- 3.1 Relevant Directorates-General
- 3.2 Fourth Framework Programme and INCO-DC
 - 3.2.1 Aims
 - 3.2.2 Themes
 - 3.2.3 Scale
- 3.3 Relevance for development
- 3.4 Strengthening of capacity for research in the South
- 3.5 A multidisciplinary approach
- 3.6 Participation of knowledge-users
- 3.7 Feedback of research results
- 3.8 Coordination with other EU activities
- 3.9 Coordination with the bilateral activities of the Member States
 - 3.9.1 The subsidiarity principle
 - 3.9.2 Complementarity of the INCO-DC programme
 - 3.9.3 Areas for complementary activities
- 3.10 Coordination with the multilateral activities of research donors
- 3.11 Coordination with developing countries
- 3.12 Cooperation
- 3.13 Trends in research for development

4. Recommendations for future policy

Appendices

Appendix 1: Report of the international workshop 'European Science and Technology Policy for Development', Noordwijkerhout, the Netherlands, 12 and 13 June 1996

Appendix 2: List of participants of the international workshop 'European Science and Technology Policy for Development', Noordwijkerhout, the Netherlands, 12 and 13 June 1996

Appendix 3: List of abbreviations

Preface

The present report was compiled by the Dutch Advisory Council for Scientific Research in Development Problems (RAWOO) at its own initiative. It presents the Council's views on the development of a European Union (EU) strategy for cooperation with developing countries in the areas of science and technology (S&T cooperation). The recommendations put forward are directed towards the Dutch government, in particular the Minister for Development Cooperation and the Ministers of Education, Culture and Science, and Agriculture, Nature Management and Fisheries.

The purpose of this advisory report is twofold. First, it is meant to contribute to the process of developing an EU strategy for S&T cooperation with developing countries, and to provide raw material for this process. Second, it puts forward proposals and makes suggestions relating to this cooperation which could affect decisions made in connection with the European Union's Fifth Framework Programme for Research and Technological Development (FP5).

The Council would like to emphasize that this report marks only the beginning of a process that should be continued by the EU Member States, the European Commission and developing countries. In the Council's view, the Dutch government should take the initiative and establish links with other EU Member States. The international conference on development-related research and the role of Europe, which will be held in March 1997 under the auspices of the Dutch government and the European Commission, should provide an excellent opportunity to further elaborate the ideas and recommendations presented in this report. The idea of a European contact group, which was discussed during the RAWOO international workshop in Noordwijkerhout on 12 and 13 June 1996 and strongly supported by many participants, could also be of much help throughout the coming process.

The report was prepared by a Council committee chaired by Dr. Joske Bunders, member of RAWOO. The other members of the preparation committee were Professor Emanuel de Kadt (chair of RAWOO), Professor Joost Ruitenbergh (member of RAWOO), Mr Paul Smits (acting Secretary of RAWOO), Mr Wim van Vuure (external advisor) and Mr Gerard van Westrienen (secretary of the preparatory committee).

It is the Council's hope that the advisory report will be useful not only for the Dutch government but also for a wider audience--in the EU Member States, the European Commission and developing countries.

The Hague, The Netherlands,
June 1996

Emanuel de Kadt,
Chairman, RAWOO

Summary

The purpose of this advisory report is twofold. First, it is meant to contribute to a process of developing an EU strategy for S&T cooperation with developing countries, and to provide raw material for this process. Second, it puts forward proposals and makes suggestions relating to this cooperation which could affect decisions made in connection with the European Union's Fifth Framework Programme for Research and Technological Development (FP5).

It must be pointed out, however, that the advisory report deals not only with the framework programme, but also with other elements of EU policy (development cooperation and international relations) that are important for scientific and technological cooperation with developing countries. The report also considers the relationship between EU policy and the policies of Member States in this area. In the Council's view, the main challenge facing the EU will be to bring all the different policy components together into one coherent EU strategy in the area of science and technology for development. But the issues that this raises go beyond the scope of this report, and the Council does not pretend to deal with them exhaustively here. The Council merely brings up a number of subjects, questions and ideas that are important in this context.

The international conference on development-related research and the role of Europe, which will be held in March 1997 under the auspices of the Dutch government and the European Commission, should provide an excellent opportunity to further elaborate the ideas and recommendations presented in this report. The idea of a European contact group, which was discussed during the RAWOO international workshop in Noordwijkerhout on 12 and 13 June 1996 (see Appendix 1 for workshop report) and strongly supported by many participants, could also be of much help throughout the coming process.

Basic principles of policy on research for development

The following principles provide direction for a policy on research for development. They are based on previous RAWOO reports and on obligations grounded in international conferences and agreements.

- Sustainable development is the starting point and guiding principle for long-term research policy.
- Commitments resulting from international conferences and agreements on global problems should be taken into account.
- Research for development should be primarily problem-oriented and aimed at helping to solve social, economic, environmental and technical problems. Scientific quality and operational quality are a *conditio sine qua non*. The aim of the criteria identifying relevance for development is to ensure that the research is in line with the needs expressed by developing countries, and that the research contributes to building up knowledge and strengthening the institutions that are part of the knowledge infrastructure of developing countries.
- The potential users of knowledge take part in its generation.
- In most cases, a multi- or interdisciplinary approach should be one of the main features.
- A programmatic approach is advocated; multi-year thematic research programmes should have priority over short-term projects.
- Throughout the research process, full attention has to be paid to feedback to potential users. Research results must have an effect on further implementation.

Current situation

Within the European Commission, three Directorates-General (DGs) are relevant to research for development: DG1B, DG8 and DG12. The EU's primary instruments for scientific cooperation with developing countries are DG8's European Development Fund (EDF) and the INCO-DC programme, which is part of DG12's activities within the Fourth Framework Programme (FP4). DG1B has little to do with research for development, particularly since all specific programmes for research have been concentrated in DG12's FP4.

INCO programme

In practice, most activities in the area of research for development are carried out within DG12. Only this DG currently has a budget earmarked for such research. The main aims of the broad INCO programme are: to strengthen the EU's S&T capacity; to support EU policy with respect to third countries; and to contribute to the solution of regional and global problems. The basic principle of cooperation is that it should be beneficial to all parties; the principle of mutual benefit.

The part of the INCO programme that is devoted specifically to developing countries, INCO-DC, is not intended for large-scale civil engineering projects, the unilateral transfer of technology or technical aid. Agriculture and Health have been the two main themes since the beginning. With the start of FP4, the INCO-DC programme added as third theme the sustainable management of renewable natural resources.

Funding gradually increased until in 1994 it reached 89 MECU a year. Under FP4, an average of 52 MECU will be available each year from 1995 to 1998. This is small compared to the contributions of other donors and Member States. The scale of projects is also relatively limited: the EU contribution is generally around 450,000 ECU, and rarely exceeds 900,000 ECU.

INCO-DC research projects are initially assessed in scientific terms. The proposals selected for their scientific merit are then assessed by an external panel in terms of their relevance for development. This external panel includes experts from developing countries. The criteria for development-relevance are formulated in rather general terms, with almost no attention being paid to the way in which research results are used, or potential users are involved. Over the years, there has been a shift away from fundamental research and towards more problem-oriented, applied research. Research projects tend to take greater account of the needs of developing countries now that the latter are more closely involved in setting research priorities within the INCO-DC programme.

Incorporating the aims related to developing countries' research capacity requires a long timeframe, a continuous dialogue with Southern partners, and a mix of investments. The INCO-DC programme can only partially contribute to achieving these aims. There are not enough funds available and the programme is based on a different philosophy: i.e., to apply existing capacity to projects of scientific cooperation. Moreover, the framework of bilateral cooperation programmes will be more appropriate. Up to now DG1B and DG8 have made only a limited contribution to building research capacity in developing countries.

Research for Development projects carried out in the context of the Framework Programmes were primarily monodisciplinary in character. Evaluation revealed that researchers in the South have been insufficiently involved in the research, in both a qualitative and quantitative sense. It also revealed that the people who are supposed to put the knowledge to use have played almost no role in preparing or conducting the research. There is too little feedback of research results, either horizontally (to other DGs within the European Commission) or vertically (to Member States or to interested parties in the South).

Coordination with other EU activities

Greater coordination with other EU activities has been achieved by integrating the various programmes of research for development into FP4. The structure of FP4 takes greater account of criticism that there has been an almost total lack of coordination with other EU activities aimed at 'third countries'(particularly from DG12, with DG8 and DG1).

In addition, a number of 'regular' FP4 research programmes (Information and Communication Technology, Biotechnology, Non-nuclear Energy, and Materials and Production Technology) have been opened up to developing countries if there is scope for genuine cooperation on the basis of mutual interest. This will generally apply only to developing countries with relatively advanced research systems. Up to now, the rate of developing countries' participation in these programmes has been very low.

Furthermore, a policy officer has recently been seconded to DG8 from DG12, to raise consciousness regarding the importance of building capacity for research that has relevance for development. This process should take place not only within the various ministries and departments of developing countries and the EU, but also in the Member States. Greater articulation of different policies and mechanisms could have a significant effect on the efficiency and effectiveness of research for development.

Coordination with the bilateral activities of the Member States

The aim, when establishing the division of powers between the EU and the Member States, was to keep those of the EU to a minimum. Under Article 3b of the Maastricht Treaty, the EU may act 'only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community'. The basic principle is that activities must be carried out at the lowest level possible. If this fails, responsibility can be taken over by a higher level, but on a subsidiary basis--i.e. deputizing for and in support of the lower level.

This principle of *subsidiarity* has never been worked out in full in respect of development cooperation in general or for research for development in particular. There is a great deal of confusion about the concept. Some consider it to be synonymous with complementarity. A situation in which the EU is just the '16th donor' alongside the Member States is not to be recommended. The EU should focus on activities which produce added value.

From the time of their inception in 1982, the former STD and current INCO-DC programmes were based on an innovative concept of projects conducted within mandatory partnerships between researchers from the North and the South, with the two sides on a more or less equal footing. It became an interesting model and an

alternative to what is done in most Member States.

The shared-cost approach, in which 50% of the total project costs are supposed to be covered by the participating institution itself, helps to ensure that the project fits in with the priorities of the institution and, in the case of a state-run institution, is consistent with national research priorities.

Furthermore, with the introduction of the INCO-DC programme, cooperation with developing countries shifted from a bilateral approach to a multilateral and regional approach. In this sense, the INCO-DC programme is complementary to activities of the Member States.

Coordination with the Member States occurs mainly through the programme management committee. In a number of areas, though, it is unclear to what extent the EU programme provides added value or has a synergetic effect with respect to the activities of the Member States. A good system for managing information about the research policies and activities of the EU and the Member States is a necessary precondition for coordination. Action is currently being taken, very gradually, to develop this element more fully.

Recommendations for future policy

First and foremost the Council recommends that the EU formulate a comprehensive and European strategy for S&T cooperation with developing countries. Such an EU strategy should:

- take the imperative of sustainable development as a point of departure;
- elaborate on the importance and the role of S&T for development;
- explore the options for real research partnerships and mutual benefit;
- take into account the increasing differentiation between developing countries and, as a consequence, the need to design country- or region-specific support mechanisms;
- be based on a continuous policy dialogue with developing countries on the role of S&T for development, and on the needs and priorities of these countries;
- emphasize a society-driven approach and give priority to research which is relevant and useful for the development process;
- integrate and coordinate existing EU policy instruments (collaborative research projects, capacity building and technology transfer);
- coordinate efforts with the initiatives and activities of the Member States and multilateral donor agencies.

Differentiation between developing countries

The ultimate goal should be cooperation on an equal footing. In most cases, given the large differences between researchers from Europe and the developing countries, this goal is still far away. Therefore, the EU should take into account the increasing differentiation between developing countries and design policies and support mechanisms that are country- or region-specific, and that combine a mix of policy instruments attuned to the requirements and needs of the particular country or region.

Improving the policy dialogue

The policy dialogue initiated by the INCO-DC programme should also encompass other EU activities relating to S&T cooperation with developing countries, which fall within the realm of DG8 (development cooperation) and DG1B (international relations). Such a dialogue can be helpful for the identification of national needs and priorities, including those in the area of capacity building and technology transfer. However, it is the stakeholders in the South who should organise and steer the process. Care should be taken to ensure that the relevant actors in developing countries are involved and that research themes do not reflect only the needs of the national authorities in developing countries.

Needs assessment

Research for development must be relevant and useful to developing countries, in that it contributes to the solution of their socio-economic and environmental problems. It should, in other words, be driven by the needs of society. Such a starting point has implications not only for policy making and priority setting, but also for policy implementation and research management.

Individual Member States have gained experience with needs assessment and bottom-up approaches to priority setting and research programming. These could be studied in more detail to draw lessons so as to prevent 'reinventing the wheel'. There is also a need to further develop methodologies and to train clients how to use them.

Needs assessment activities should be integrated with ongoing initiatives and existing mechanisms for demand articulation in order to avoid duplication and overlap. Many developing countries are burdened by too many

disparate donor initiatives. Needs assessment studies should therefore be better coordinated and directed at filling research gaps. It is not helpful to continue adding new free-standing activities.

The Council recommends that the EU launch a study to review the experience of the Member States with needs assessment and bottom-up approaches. The outcome of such a study could also help to assess how methodologies should be further developed and enhanced.

Capacity building

Evaluations of the STD programme show that relationships between European researchers and counterparts from the South tended to be short-term, and that the division of responsibilities and activities has been very unequal. In addition, the STD programme was 'largely science-led in its decisions about funding', there was a strong bias in the initial phase towards the strengthening of research capacity in Europe, and the projects were limited in scale and duration.

The sustainable development of research capacity in Southern countries requires a long-term approach that is process-oriented rather than project-oriented. It should encompass investments in different areas, such as human resources, institutions, networks and an enabling environment. Sustainability is inherently unachievable if the research lacks relevance for the country itself.

Evaluations of the STD programme have also suggested that institutions are strengthened not so much through research projects as through support for scientific networks, and that this has perhaps been one of the STD programme's most significant contributions. Since STD2, support for scientific networks has been accepted as an approved activity for funding. Networks are of particular importance for countries and institutes in the EU which do not have traditional ties with countries in the South, and which have no experience of North-South cooperation. Training--which has also become a formal part of the programme since STD2--is now also seen as more than just a by-product of research. Support for North-South knowledge networks should be further extended.

Integration and coordination of EU policy instruments

Within the framework of the Lomé Convention, developing countries give little priority to research. The attention of poorer countries is focused on short-term problems; long-term priorities such as research are often not seen as important. In addition, many researchers in the developing world have insufficient contact with decision-making and policy-making bodies in their own countries, as a result of which national channels do not relay requests for support with sufficient force for research to be funded through the Lomé procedures. The contribution of DG1B and DG8 towards capacity building should be stepped up. In the context of DG8 this may imply policy dialogue, sensitization of leadership, demonstration of return to investment, etc. DG12 could benefit from the expertise acquired through the programmes of DG8. The initial steps taken recently to give greater attention to research within DG8 and in the priority setting of developing countries should be further developed. DG8 should assist DG12 with its needs-assessment activities.

Ties between the various DGs involved in the field of research for development--DG1, DG8 and DG12--could in various cases be further strengthened and solutions sought to break through the current compartmentalization of activities. The recent shift in the INCO-DC programme towards a more regional approach could be a step in the right direction if regional priorities are based on local assessments, and linkages with local actors are maintained throughout the whole process. In Africa, a more regional approach is often required in order to develop a critical mass. This kind of cooperation should go hand in hand with regional cooperation in the economic and cultural spheres. A better articulation between the different instruments and mechanisms of DG1, DG8 and DG12 for scientific cooperation and strengthening research capacity, should be explored. The current, more regional approach could be further developed into broad-based, longer-term, multidisciplinary cooperation programmes, taking into account needs assessments and priority-setting activities on local and national levels.

Coordination between the EU and the Member States

Although the INCO-DC programme is in some respects complementary to activities of the Member States, the scope for application of the subsidiarity principle to research for development should be investigated further. A new initiative has been under way since last year to search for a more integrated common policy in the field of international agricultural research between the EU, Member States and international organizations. This initiative could possibly serve as a model for further coordination of research between the Member States and the Community.

Problems of coordination and coherence of policies are not unique to the EU. On a national level, similar problems of cooperation and coordination between research and wider development issues occur between the government aid and science departments. Although in theory cooperation is encouraged, practical impediments

are often too strong. The advantages or synergy of coordination in the short and long run should be spelled out more clearly. A starting point for better coordination is the sharing of information. Coordination should be based on its relevance for the South and the assessment of local needs.

In developing countries, the science sector is seldom one of the priority areas. Further underpinning of the strategic importance of research for development in the short run as well as in the long run should take place. Consciousness-raising, dialogues and information-sharing on a policy level between different actors should be stimulated and lead towards a coherent policy on research for development for the EU, as well as for the Member States and developing countries.

EU policy instruments: the Fifth Framework Programme

The development of coherent EU policies towards developing countries is fostered by research that is based on a thorough knowledge of those countries and conducted in cooperation with them. Such policies in the long run could also improve the EU's own industrial competitiveness. The new global relationships require a conscious focus on specific policies. They also require research partnerships between Europe and other parts of the world. Such relationships offer new opportunities for mutual benefit. The INCO-DC programme provides an interesting model for this new type of partnership. The present situation should be the starting point for further improvements which can be implemented with the Fifth Framework Programme.

A special programme for S&T cooperation with developing countries within the framework of FP5 is crucial for policy and activities in the area of research for development. The social sciences and the humanities should also be incorporated into the programme. The programme should have its own management committee consisting of expert advisers from EU and developing countries. The possibility of earmarking funds for research should be considered by the DGs responsible for development cooperation (DG1B and DG8).

At present, the INCO-DC programme applies two sets of criteria when assessing project proposals: those related to scientific quality and those related to relevance for society and development. The Council takes the view that a society-driven approach to research for development implies that both sets of criteria are equally important and should be reviewed in a consistent and coherent manner. Furthermore, the Council notes that the second set of criteria is still relatively 'underdeveloped' and poorly operationalized. This relates especially to criteria indicating how users of research results have been involved in the different stages of the research process. The project assessment procedure applied within the INCO-DC programme needs to be adapted. Criteria pertaining to relevance for development should be more clearly defined and elaborated and given more weight in the assessment procedure.

The resources of the programme are too limited, considering the objects and scope of the programme. This is also reflected in the extremely low ratio of projects which acquire funding to the proposed projects. Valuable time and resources are wasted, both by researchers and by the panels of experts who assess proposals. In addition to increasing the budget for the INCO-DC programme, there is a good case for instituting a preliminary round, based on short proposals setting out the main research ideas. Those selected could then be further elaborated into full proposals, specifying the information necessary to assess the societal and scientific relevance on the basis of explicit criteria.

INCO-DC offers possibilities for funding preparatory, accompanying and support measures as well as 'concerted actions' such as seminars, studies, workshops, training & mobility and dissemination. In practice, and contrary to other Framework Programmes, these possibilities are hardly used in the INCO-DC programme, in spite of its contribution to the strengthening of research capacity and the added value in relation to bilateral activities. More attention should be given to accompanying measures and concerted actions within the INCO-DC programme. Consideration should be given to reserving a substantial portion of the funds for these activities.

Contact group

At present, there is no place where the EU and the Member States can formally discuss policy on research for development in its broader sense, where genuine coordination can occur, where the best of the policies and activities of the various donors can be extracted and brought together, and where lessons can be learned from the negative and positive experiences of others. The EU could play a complementary and synergetic role in the area of comparative research and in improving the quality of the research supported by the individual Member States and the Commission itself. A formal or informal 'contact group' should be set up, which could act as a synergetic 'meeting point' from where recommendations could be made both on the themes and the geographical distribution of research, and in the areas of needs assessment and research methods. It would also be useful to set up pilot studies to test innovations.

Such a group could also formulate initiatives to further develop the concept of 'sustainability', not only in

environmental terms but also at the political, cultural and economic levels. In addition, it could investigate aspects of research for development specific to Europe (or the prospects for developing these); this could occur in the light of the policies and activities of others in this area, such as the United States or Japan. In addition to being a think tank concerned with policy, the group should also devote attention to innovation, the further development of ideas and the scope for implementation.

1. Introduction

1.1. Background and objectives

This advisory report deals with EU policy regarding research for development. The Advisory Council for Scientific Research in Development Problems (RAWOO) has drafted the report at its own initiative. There was a very clear reason for doing so: the European Union's Fifth Framework Programme for Research and Technological Development, which will take shape between now and the end of 1997. The Council hopes with its report to anticipate decisions that will be taken regarding the programme, particularly concerning the place that is given to research cooperation with developing countries. The fact that the Netherlands will chair the EU in the first half of 1997 is not insignificant in this context.

It must be pointed out, however, that the advisory report will deal not only with the framework programme, but also with other elements of EU policy (development cooperation and international relations) that are important for scientific and technological cooperation with developing countries. The report will also consider the relationship between EU policy and policies of Member States in this area. In the Council's view, the main challenge facing the EU will be to bring all the different policy components together into one coherent EU strategy in the area of science and technology for development. But the issues that this raises go beyond the scope of this report, and the Council does not pretend to deal with them exhaustively here¹. The Council merely brings up a number of subjects and questions that are important in this context.

To help with the preparation of this report, the Council held an international workshop on 12 and 13 June 1996, in Noordwijkerhout. A position paper drafted by the Council served as the basis for discussion of the content and organization of future European policy for development-related research. The aim of the workshop was to consult a wider group of specialists from other EU Member States, the European Commission, and developing countries on these issues, and to draw these specialists into the process of developing further ideas. Another important reason for the workshop was to broaden the base of support for the report's recommendations. Broad support will of course be essential if the changes and improvements in EU policy are to be achieved.

The participants in the workshop welcomed the Council's initiative, and agreed that it is important. Not only can the report influence decisions regarding the Fifth Framework Programme, but the workshop for the first time brought together researchers and policy-makers from the EU who are involved in policy regarding development-related research. As such, the basis for a European contact group has been laid. The Council sees this an important result. It is important for the future that a process gets underway by which interested parties throughout the EU consult each other and exchange information on the subject. A European contact group has an important role to play here and could take the ideas and recommendations put forward in the present report as a starting point for further discussion and elaboration.

In the course of preparing this report, it was announced that the Minister for Development Cooperation is planning to hold an international conference together with the European Commission in March 1997. The subject will be the role of Europe in fostering research for development. The present advisory report, and the report of the international workshop (see Appendix 1), can both serve as input for this conference.

Against this background, the advisory report has the following objectives:

- to provide raw material for the formulation of an EU S&T strategy for development;
- to make propositions and suggestions for the Dutch position regarding the components of the Fifth European Framework Programme for Research and Technological Development which deal with research cooperation with developing countries;
- to stimulate a process of information sharing and communication on S&T policies for development between the EU Member States and the European Commission;
- to contribute to setting the agenda for the international conference on development-related research and the role of Europe, which will be held in March 1997 under the auspices of the Dutch government and the European Commission.

¹ For example: the implications of changing economic and political relations, changing views on the relevance of research for industrial competitiveness, and new forms of institutional development.

1.2. Structure of the report

Chapter 2 of this report sets out the basic principles to which research for development should adhere. These principles, which concern both the content of the research and the research process, are based on previous RAWOO reports and on obligations grounded in international conferences and agreements to support developing countries in the process of sustainable development, and to seek solutions to global problems.

Chapter 3 gives a brief outline of EU policy and activities in the area of research for development and highlights the most urgent problems and issues.

Chapter 4 presents the Council's conclusions and recommendations.

2. Basic principles of policy on research for development

To provide direction for policy on research for development and the activities related to it, it is necessary to set out a number of basic principles to which the research should adhere. These principles concern both the content of the research and the research process itself.

In this context, research for development is defined as research in any discipline which is relevant to understanding social, economic, environmental or technical change, and promoting improvement in Third World societies or in North South relations.²

The principles the Council applies are based on previous RAWOO reports³ and on obligations grounded in international conferences and agreements to support developing countries in the process of sustainable development and to seek solutions to global problems.

2.1. Sustainable development

Sustainable development is the starting point and guiding principle for any long-term research policy. In RAWOO's view, the great challenge for the research sector is to tackle the problems of development--in particular poverty--and environmental degradation through an integrated approach.

2.2. Global and local problems

In recent years, a series of major international conferences have been held and several international agreements (such as the climate and biodiversity conventions) signed which have attempted to address serious global and local problems. At the same time, we have seen numerous changes and developments on a global scale--enormous growth in the world population, and globalization of social and economic relations, for example--which are of strategic importance for the common future of all people, be it in the North or in the South.

As a result of these agreements and analysis the countries of the North and the South have committed themselves to undertake a variety of measures, many of which touch on the areas of research, science and technology. Research for development should take these commitments into account, realising that the identification and implementation of the solutions require information and commitment of those who act locally.

2.3. Relevance for development

Research for development should in the first instance be problem-oriented and aim to contribute to the solution of social, economic, environmental and technical problems which hamper development. Criteria concerning the development relevance of programmes and projects should carry considerable weight when assessing eligibility for funding. Scientific quality and operational quality should, of course, also be taken into account, with scientific relevance as a *conditio sine qua non*. The aim of the criteria identifying relevance for development is to ensure that:

- the research is in line with the needs expressed by developing countries;
- the research contributes to the build-up of knowledge and strengthening the institutions of the knowledge infrastructure in developing countries.

Participation of knowledge-users

An essential component of the preparation and implementation of research for development is the participation of the potential users of the knowledge acquired. This increases both the possibility that the research is in line with the wishes and needs of the target groups and the chance that the results of the research will actually be used. It gives form and substance to a demand-oriented rather than a supply-oriented approach.

² Based on the definition in: NAVF, *A Strategy for Norwegian Development Research*, Oslo, 1988.

³ The following reports are most relevant in this respect:

- *Report on research of specific relevance to development cooperation*, RAWOO, The Hague, May 1989. In Dutch only;
- *Criteria for assessing proposals for research in and for developing countries*, RAWOO publication no. 2, The Hague, August 1991;
- *Advisory report on the organization of research within the framework of development policy*, RAWOO publication no. 3, The Hague, August 1991. In Dutch only;
- *A medium-term perspective on research for development: research needs and Dutch research capacity*, RAWOO publication no. 7, The Hague, July 1995.

Feedback of research results

It is essential for the functionality of research for development that full attention is paid at both the preparatory and implementation stages to feeding back the results of research to policy and implementation.

A multi/interdisciplinary approach

Research for development is mainly aimed at societal problems. These frequently require a multi-faceted strategy, rather than a monodisciplinary solution. In most cases, therefore a multi/interdisciplinary approach should be one of the main features of research projects and programmes.

A programmatic approach

RAWOO also advocates a programmatic approach to research for development. Multi-year thematic research programmes should have priority over short-term projects. This can also contribute to a better articulation of the issues, capacity strengthening and interdisciplinary cooperation. Opportunities for small-scale, innovative projects should, however, not be stifled.

3. Analysis of current problems and policy issues

This chapter gives a brief outline of policy and activities in the area of research for development within the European Union and highlights the most urgent problems and issues. We close the chapter by examining some of the more important trends of the past twelve years.

In the absence of a cohesive analytical framework, this analysis is largely based on the aims of specific programmes and ad hoc policy. In addition, few evaluations have been carried out, either of projects or programmes. 'Few reliable indicators of such cooperation [in science and technology between the EU, its Member States and developing countries] have been collected on a Europe-wide basis. The information which is available is often partial and incomplete'.⁴

A broad discussion on the future European policy in the area of research for development is important for several reasons.

The general aims of EU development cooperation were formally defined for the first time in the Maastricht Treaty on European Union⁵, making it an official area of common policy. In contrast to, for example, trade policy, the Member States do not have to transfer their national responsibilities for development cooperation entirely to the European Union. Consequently, the policies of the Member States and the Union will continue to co-exist. The development policy of the Community should be seen as complementary to that of the individual states.⁶ The current division of activities between the Community and the Member States has evolved historically, and there is little complementarity between them.

In respect of Research and Technological Development, the European Commission declared its intention in 1994 'to add a new dimension to the Community's RTD activities by taking coordination measures to make the national and Community policies more consistent and, thereby, make all the still overfragmented efforts more efficient. ...The Commission proposes a progressive approach to achieve better coordination by intensifying cooperation at the various stages of drafting and implementing RTD policy'.⁷

Coordination is seen as one of the most important elements in the achievement of complementarity.

As yet, the EU has not formulated a general strategy in the policy area of research for development. The Fourth Framework Programme for Research and Technological Development, which runs from 1994 to 1998, first explicitly expressed the intention to formulate 'an overall EU strategy for S&T cooperation with third countries... including all relevant services of the Commission'.

3.1. Relevant Directorates-General

Within the European Commission, three Directorates-General (DGs) are relevant to research for development: DG1B, DG8 and DG12. The EU's primary instruments for scientific cooperation with developing countries are DG8's European Development Fund (EDF) and the INCO-DC programme, which is part of DG12's activities within the Fourth Framework Programme.

DG1B has little to do with research for development, particularly since all specific programmes for research have been concentrated in DG12's Fourth Framework Programme.

DG8, the DG for Development Cooperation, is responsible for relations with the ACP countries within the framework of the Lomé Conventions. Under the Conventions, the ACP countries indicate themselves which sectors have priority in terms of programming. In practice, the research and training sector is designated as a priority area by an ACP country only in a small number of cases and projects in the field of research are carried out only very occasionally under the Lomé Conventions. Where EDF funds are allocated to this area, they are mainly used to finance the research infrastructure.

⁴ *European report on S&T indicators 1994*; European Commission, 1994, EUR 15897 EN.

⁵ *Treaty on European Union*, European Communities - Council, 1992; Title XVII.

⁶ Article 130 U of the Treaty on European Union.

⁷ *Research and technological development: achieving coordination through cooperation*, Commission of the European Communities, COM (94) 438 final; 19-10-1994.

Since the beginning of 1995 a policy officer from DG12 has been seconded to DG8 to act as a coordinator and perform a bridging function between the two. This makes a concrete contribution to the development of policy in the area of development-related research. For example, explicit attention is now being paid for the first time to Research and Technological Development in the guidelines to the heads of delegations involved with the programming of the second financial protocol for Lomé IV.

Most activities in the area of research for development are carried out within DG12. Only this DG currently has a budget earmarked for such research. In 1982, as part of the First Framework Programme for Research and Technological Development, the first Science and Technology for Development (STD) programme was set up. In 1984 and 1992, two other programmes aimed at scientific and technological cooperation between the EU and specific developing countries or regions were set up independently of the Framework Programme. These were the International Scientific Cooperation (ISC) programme and the AVICENNE programme.

In view of this, the rest of this chapter is related mainly to the research policy and activities of DG12.

3.2. Fourth Framework Programme and INCO-DC

Since 1994 all research programmes have been integrated in the Fourth Framework Programme (FP4). FP4 is intended to strengthen the scientific and technological basis of European industry and improve its competitive position by promoting cooperation between companies, research centres and universities. Besides, FP4's objective is to support the implementation of all research activities deemed necessary for other Community policies.

Within FP4 the INCO-DC programme is specifically concerned with scientific and technological cooperation with developing countries. The former STD, ISC and AVICENNE programmes have been integrated into this programme. It is a part of the wider INCO programme, whose main theme is 'cooperation with third countries and international organizations'.

As yet, a general strategy in the policy area of research for development has not been developed at European level. The intention has been expressed within the INCO-DC programme to formulate an overall EU strategy for cooperation with 'third countries'.

3.2.1. Aims

The main aims of the broad INCO programme are as follows:

- to strengthen the EU's S&T capacity;
- to support EU policy with respect to third countries;
- to contribute to the solution of regional and global problems.

The basic principle of cooperation is that it should be beneficial to all parties; the principle of mutual benefit.

The primary aims of the INCO-DC programme are:

- to involve developing countries in the generation of knowledge and technology which might help solve their development problems, with a view to achieving sustainable development;
- to strengthen and maintain research capacity in developing countries, particularly in the area of human potential;
- to enable Europe to maintain and strengthen its leading position in scientific fields which are significant in solving the problems facing developing countries;
- to promote scientific cooperation within Europe, between Europe and developing countries, and between developing countries themselves;
- to enable developing countries to make a contribution to the solution of global problems;
- to take account of the commitments based on EU policy regarding developing countries and on the recommendations of international fora (such as UNCED).

The INCO-DC programme is not intended for large-scale civil engineering projects, the unilateral transfer of technology or technical aid.

3.2.2. Themes

Agriculture and Health have been the two main themes of the STD programme since the beginning and the INCO-DC programme has largely continued in the same vein by focusing on the following sectors of general importance:

- sustainable management of renewable natural resources;
- sustainable improvement of agriculture and agro-industrial production;
- health research for development.

With the INCO-DC programme, the shift in emphasis from bilateral cooperation to a multilateral and regional approach is further elaborated. Two categories of priority have been specified within the themes:

- global: problems affecting more than one region; priorities addressed at international fora in which developing countries also take part (such as UNCED) and on which there is an international consensus;
- regional: problems within a group of countries that are linked geographically or politically, or within certain individual countries (e.g. China); priorities formulated through a continual dialogue with the countries in the region and with the regional organizations.

The possible research areas of the ISC and AVICENNE programme were much broader than the research themes of the former STD programme or current INCO-DC programme. Integration of these activities into INCO-DC has thus resulted in a restriction of possible research themes.

3.2.3. Scale

From the start of the First Framework Programme and STD1 at the beginning of the 1980s, the funds allocated for development-related research in the various programmes gradually increased to 89 MECU (193 million guilders) a year in 1994.

FP4, however, represents a radical change of tack. The rising trend has come to an abrupt halt, with funds being reduced by more than 40%. In the 1995-1998 period, an average of 52 MECU (113 million guilders) will be available per year. This is small compared to other donors and Member States. The scale of projects is also relatively limited: the EU contribution is generally around 450,000 ECU, and rarely exceeds 900,000 ECU.

The first call for proposals for the INCO-DC programme resulted in about 1200 research proposals, fewer than 10% of which could be financed.

Although referred to in the programme's objectives, the programme is not able to significantly strengthen developing countries' human capital or institutional capacities because the budget of the INCO-DC programme is limited.⁸ As a consequence the philosophy is to cooperate with existing institutions and research teams.

3.3. Relevance for development

INCO-DC research projects are initially assessed in terms of scientific value. The proposals selected for their scientific merit are then assessed by an external panel in terms of their relevance for development. This external panel comprises experts from developing countries.

The criteria for development-relevance are formulated in rather general terms, with almost no attention being paid to the way in which research results are used, or potential users are involved. One of the criteria which RAWOO has formulated (see Box 1) states that 'Every proposal for research or technology intended to benefit the Third World must indicate how the target group will be reached'.⁹

Box 1 RAWOO report on Relevance of research for development

RAWOO has published a report which contains criteria for assessing proposals for research in and for developing countries. The criteria fall into three categories:

- relevance to society and policy
- scientific quality
- operational quality

⁸ "The resources allocated to INCO are very limited indeed, considering the objectives and scope of the programme"; *1995 External Monitoring Report on the specific programme Cooperation with Third Countries and International Organisations*, January 1996.

⁹ *Criteria for assessing proposals for research in and for developing countries*, RAWOO publication no. 2, August 1991.

Central elements of the first category are:

- the proposal states which important and currently relevant issues (social, cultural, political, economic or technological) will be addressed, and why
- mechanisms for transferring knowledge and increasing the counterpart's capabilities are given special attention in the proposal
- the proposal describes the general risks associated with the research itself and with resulting innovations
- the proposal indicates explicitly how the needs of the final beneficiaries have been identified
- the proposal includes a description of the expected impact: economic, social, cultural and environmental
- the proposal describes how the new knowledge will serve the current development policies of the country or countries in question. The proposed programme or project should have the support of researchers, politicians, final beneficiaries (or their representatives), and the other parties concerned
- the proposal indicates the institutional structures and infrastructure needed for disseminating the new knowledge among the target group, and for marketing any product.

Over the years, there has been a shift from basic to more problem-oriented, applied research. Research projects tend to take greater account of the needs of developing countries now that the latter are more closely involved in setting research priorities within the INCO-DC programme.

Greater emphasis is gradually being laid on the relevance of research for development. The Council of Ministers for Development Cooperation has recently stated, for example, that one of the priorities of research for development should be that it responds to the specific needs of developing countries. The Council believes that research for development should be based on the following principles:

- to ensure that a research project makes a genuine contribution to the development process, the recipients must be closely involved in setting priorities for the project and the way in which it is carried out;
- researchers and users should work more closely together on the distribution and appropriation of the results.

In addition, the Council of Ministers believes that the implementation of the programmes should aim to strengthen research capacity in developing countries and its integration at regional level, and to mobilize European scientific expertise on the basis of the needs expressed by the developing countries.¹⁰

Box 2 Relevance of research for development--an example from Germany

The BMZ (German Federal Ministry for Economic Cooperation and Development) supports substantially International Agricultural Research. Part of the funds are used to strengthen collaboration between International Agricultural Research Centres (IARC), National Agricultural Research Systems (NARS) and German scientists (restricted core funding and special projects).

In 1995 an implication analysis of these research projects was finalized. The main objective was to clearly identify the relevance and use of research results and to initiate a learning process of the planning, implementation and monitoring of future research projects.

As a result the BMZ Standard Guidelines for Requests for Research Funding from IARCs were reformulated to make relevance of research for development one of the major criteria for funding. A mechanism is included that provides a feedback for researchers, IARC's agenda and to the programme management.

For the research to be undertaken and for information on the potential impact for the end users criteria apply such as:

- thorough analysis of the development problem within the political, economical and cultural framework
- explanation of how the problems of the beneficiaries (i.e. by which means and institutions) have contributed to formulation of the research

¹⁰ Statement from the Council of Ministers on research for development at its 1849th session, 7566/95; 01-06-95.

- positioning of the project in the research-development continuum (basic-strategic-applied), including the starting point and the expected target
- expected impact of research for the ultimate beneficiaries or contribution to solving the development problem
- mode of dissemination of research results
- expected benefits of the project for National Agricultural Research Systems (NARS).

3.4. Strengthening of capacity for research in the South

For several reasons, the INCO-DC programme has no comparative advantage in the area of building up research capacity in developing countries. The programme favours projects involving scientific cooperation between several European states and one or more developing countries. In the early phases of the STD programme, the emphasis lay on strengthening research capacity in Europe itself. The programme was 'largely science-led in its decisions about funding' and there was little continuity in the cooperative relationship between institutes in Europe and the South. The relatively short duration of research projects also restricts the scope for building up capacity in the developing world.

But genuine scientific cooperation can take place only when research capacity is adequate. In the light of global development issues, it will be beneficial to have this capacity well distributed over the world. Achieving adequate research capacity is not a matter of merely increasing the number of researchers through training. Above all, it is a matter of maintaining and making good use of the capacity that is present, of establishing viable networks (national, international, and regional), and of securing an enabling environment (at institutional and policy levels) so that the societal relevance of the research can indeed serve a real purpose.

Box 3 RAWOO Advisory Report on Capacity Building

RAWOO recently submitted an advisory report to the Dutch government on how best to support capacity-building for research in the South. The Council concludes that Dutch policy still fails to fully recognize the fact that the building up and strengthening of research capacity in developing countries requires a country-specific or region-specific approach; efforts must be coherent, and tailored to the needs and priorities of the national research system. A coherent approach must address three levels: the level of the individual (training in research methods and in more efficient utilization of capacity that is already present); the level of the institution (reinforcement of institutions that generate, apply and disseminate knowledge); and the level of the 'enabling environment' (the policy and societal environment of research).

Given the considerable differences between countries in terms of their capacity for research, there is an urgent need for a country-specific mix of programmes and instruments. The parties involved in research in developing countries--researchers, policy makers and users of research results--should steer the process, and give direction to policy, on the basis of a dialogue on national requirements and priorities.

Incorporating the aims related to developing countries' research capacity requires a long timeframe, a continuous dialogue with Southern partners, and a mix of investments. The INCO-DC programme can only partially contribute to achieving these aims. There are not enough funds available and the programme is based on a different philosophy: i.e., to apply existing capacity to projects of scientific cooperation. Moreover, the framework of bilateral cooperation programmes will be more appropriate. Up to now, however, DG1B and DG8 have made only a limited contribution to building research capacity in developing countries.

Evaluations have shown that EU support for scientific networks is a more effective means of strengthening institutions in developing countries than carrying out research projects.¹¹

Box 4 SAREC's approach to Science and Technology for Development

'In countries with weak S&T the main thrust is to build up and strengthen national research capacity.'

¹¹ *Evaluation of the Community Programme on Science and Technology for Development - STD (1987-1991)*, Commission of the European Communities, June 1992.

In countries with relatively strong S&T, the main aim is to generate research results of importance to the country concerned, as well as other developing countries.

The routing of SAREC's direct support to institutions in countries takes place through three types of channels, depending on the nature of overall organization of research in the countries concerned:

- through national research councils
- through universities and ministries
- directly through individual institutions

It is important to note that above mechanisms are by no means mutually exclusive; they can and do operate simultaneously in given country-cases. A flexible and pragmatic approach is used in putting together an advantageous "mix", taking the specificity of the country situations into account.'

3.5. A multidisciplinary approach

Projects carried out under STD1 and 2 are still primarily monodisciplinary in character. A more interdisciplinary approach was chosen for STD3 and the submission of projects that are relevant to both the main themes of Agriculture and Health is actively encouraged. In practice, however, this very rarely occurs.

In the INCO-DC programme, emphasis is laid on the interrelation between the three main sectors and on interdisciplinary aspects. Where appropriate, research projects should have an interdisciplinary, multidisciplinary and cross-sectoral approach. The question is whether this slight tightening up of policy will have sufficient effect.

3.6. Participation of knowledge-users

Evaluation of STD research has clearly indicated that not only were researchers in the South insufficiently involved in a qualitative and quantitative sense in the research, but that knowledge-users were also hardly involved in the preparation and implementation.¹²

Within the INCO-DC programme the very gradually increasing trend to give the South a more extensive role in research is continuing. The participation of potential knowledge-users is also being promoted in the programme through 'concerted actions' and 'accompanying measures', such as seminars, studies, workshops, training & mobility and dissemination.

3.7. Feedback of research results

There is very little feedback of results of research, either horizontally (to own or other DGs within the EU) or vertically (to Member States or to interested parties in the South).

Within the INCO-DC working programme, the accompanying measures include dissemination and valorization of results. The evaluation of the start of the INCO programme indicated that 'the accompanying measures are not fully exploited in all areas'.¹³ Generally speaking, feedback of results to the various interested parties has been too limited.

3.8. Coordination with other EU activities

Greater coordination has been achieved by integrating the various programmes on research for development into FP4. The structure of FP4 takes greater account of criticisms of an almost total lack of coordination with other EU activities aimed at 'third countries' (particularly from DG12, with DG8 and DG1).

In addition, a number of 'regular' FP4 research programmes (Information and Communication Technology, Biotechnology, Non-nuclear Energy, and Materials and Production Technology) have been opened up to developing countries if there is scope for genuine cooperation on the basis of mutual interest. This will generally apply only to developing countries with relatively advanced research systems. Up to now, the rate of developing countries' participation in these programmes has been very low.¹⁴

¹² *Evaluation of the Community Programme on Science and Technology for Development - STD (1987-1991)*, Commission of the European Communities, June 1992.

¹³ *1995 External Monitoring Report on the specific programme Cooperation with Third Countries and International Organisations*; January 1996.

¹⁴ *1995 External Monitoring Report on the specific programme Cooperation with*

Furthermore, a policy officer has recently been seconded to DG8 from DG12. Because development funding in DG8 is demand-driven (i.e., the developing countries themselves have to indicate which sectors have priority), it is important that the beneficiary countries be encouraged to include research among their own development priorities.

This process of consciousness-raising regarding the importance of building capacity for research that has relevance for development, should take place not only within the various ministries and departments of developing countries and the EU, but also in the Member States. Greater articulation of different policies and mechanisms could have a significant effect on the efficiency and effectiveness of research for development.

Regarding the EU, the active interaction between INCO-DC and certain other DGs should be expanded. 'Complementary funding from EDF or MEDA can be used to build infrastructures and competence to support participation in Community RTD programmes'. At the same time, however, 'The consistency of the selection of topics with other Community policies such as the Lomé Convention should be more clearly established in the future'.¹⁵ DG8 could assist DG12 with needs-assessment activities.

3.9. Coordination with the bilateral activities of the Member States

3.9.1. The subsidiarity principle

The aim, when establishing the division of powers between the EU and the Member States, was to keep those of the EU to a minimum. Under Article 3b of the Maastricht Treaty, the EU may act 'only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community'. The basic principle is that activities must be carried out at the lowest level possible. If this fails, responsibility can be taken over by a higher level, but on a subsidiary basis--i.e. deputizing for and in support of the lower level.

This principle of *subsidiarity* has never been worked out in full in respect of development cooperation in general or for research for development in particular. There is a great deal of confusion about the concept. Some consider it to be synonymous with complementarity. Others argue that the subsidiarity principle should be applied only in areas where the EU has legal authority, such as in matters of trade policy. In areas where authority is shared with the Member States, the principle of complementarity should apply¹⁶. The Dutch Advisory Council for Science and Technology Policy, AWT, interprets the subsidiarity principle in terms of effectiveness and efficiency: 'when is it effective to conduct a European research policy and/or when is it efficient?'¹⁷

A situation in which the EU is just the '16th donor' alongside the Member States is not to be recommended. Former President of the European Commission Jacques Delors believed that the EU should focus on activities which produced added value: 'It should abandon implementing cooperation policies that do not clearly bear a value-added element...'.¹⁸

3.9.2. Complementarity of the INCO-DC programme

From the time of their inception in 1982, the former STD and current INCO-DC programmes were based on an innovative concept of projects conducted within mandatory partnerships between researchers from the North

Third Countries and International Organisations; January 1996.

¹⁵ 1995 *External Monitoring Report on the specific programme Cooperation with Third Countries and International Organisations; January 1996.*

¹⁶ J. Bossuyt et al., *European development policy after the Treaty of Maastricht: the mid-term review of Lomé IV and the complementarity debate*, ECDPM Maastricht, 1993.

¹⁷ *Report on the Netherlands position on the Fifth Framework Programme of the EU*, AWT, The Hague, April 1996. In this report the AWT states that 'it would be advisable with respect to the objectives where no economic, institutional or cultural differences play a role of significance, to embark upon EU-wide cooperation and coordination, namely in the research areas such as health, the environment and infrastructure, but also with reference to academic top research'.

¹⁸ J. Bossuyt et al., *European development policy after the Treaty of Maastricht: the mid-term review of Lomé IV and the complementarity debate*, ECDPM Maastricht, 1993.

and the South, with the two sides on a more or less equal footing. It became an interesting model and an alternative to what is done in most Member States.

The shared-cost approach, in which 50% of the total project costs are supposed to be covered by the participating institution itself, helps to ensure that the project fits in with the priorities of the institution and, in the case of a state-run institution, is consistent with national research priorities.

Furthermore, with the introduction of the INCO-DC programme, cooperation with developing countries shifted further from a bilateral approach to a multilateral and regional approach. In this sense, the INCO-DC programme is complementary to activities of the Member States.

Coordination with the Member States occurs mainly through the programme management committee. In a number of areas though it is unclear to what extent the EU programme provides added value or has a synergetic effect with respect to the activities of the Member States.

Coordination is seen as an important instrument in the effort to achieve complementarity. And coordination must be achieved in its turn through cooperation. Hence the current pragmatic slogan in the EU of 'achieving coordination through cooperation'.¹⁹ A good system for managing information about the research policies and activities of the EU and the Member States is a necessary precondition. Action is currently being taken, very gradually, to work this element out more fully. 'The efforts to increase the synergy between the activities of the Member States and the Community interventions are still at an early stage. We believe that this process can at the moment best be facilitated by reviewing the relevant activities and programmes in the Member States as foreseen in the INCOPOL study'.²⁰

3.9.3. Areas for complementary activities

To optimize the relationship between policy and implementation at national and EU level, and to improve the efficiency and effectiveness of research for development, it is crucial that activities are divided in a responsible manner. In this section, the Council suggests a number of areas in which EU activities could have added value or have a synergetic effect.

Scale

The description of the subsidiarity principle explicitly identifies the scale of activities as one criteria for EU involvement. In practice, the scale of both the total budget and individual projects of the INCO-DC programme is small in comparison to the activities of other donors and Member States, although generally speaking funding is restricted to 50% of the costs of the research.

The current projects and structure of the INCO programme are not aimed at the achievement of large-scale effects. If the EU were to finance only large projects because of a shortage of funds among the Member States, the budget would soon be exhausted.

Content

The EU could be involved with themes and in areas which are relevant to the majority of countries in the South and provide added value on issues involving transboundary interests and aspects.

The EU could also have added value in areas that are politically sensitive, for example human rights or democratic relations between a Member State and a former colony, by conducting research that might be considered more politically neutral.

Other than these areas, there are almost no specific themes that would justify research being conducted at EU level. In addition, the EU possesses very little knowledge or expertise of its own and is always obliged to fall back on that of the Member States.

In the past, capacity in certain areas of research for development has come under pressure in a number of Member States, both in a qualitative and a quantitative sense. Similarly, research capacity in a number of areas

¹⁹ *Research and technological development; achieving coordination through cooperation*, Commission of the European Communities, COM(94) 438 final, Brussels, 19-10-1994.

²⁰ *1995 External Monitoring Report on the specific programme Cooperation with Third Countries and International Organisations*; January 1996.

may also be lost as a result of, for example, cutbacks at ministries. In the past, for example, EU support for health research was vital to the survival of several laboratories in the Netherlands. The EU could play a significant role here by safeguarding essential research capacity in areas where there is a risk that it will be underdeveloped or disappear altogether.

The EU's own policy area

The EU could also play a specific role in critical research aimed at or important to its own areas of policy, particularly in the field of development. Areas in which the EU has considerable legal authority because the Member States have transferred their responsibilities entirely or in part to the Union - such as trade policy - or which have potential repercussions for developing countries and for which policy is more likely to be formulated at EU than at national level, such as the common agricultural policy, would be suited to this form of critical and policy-supporting research.

Broadening the geographical involvement of the Member States

The EU plays a role in encouraging the Member States to adopt a wider approach than that determined by their historical bias towards former colonies. It is, however, debatable whether this function is now obsolete and whether it continues to justify the involvement of the EU.

The activities of Member States are frequently focused on a limited number of countries or regions. Consequently there may be areas which are not sufficiently covered. The EU may be able to fill these 'gaps'. To determine whether such gaps exist and where they are, a geographical analysis of the development efforts of the individual Member States is required.

With the INCO-DC programme adopting a more regional approach, the EU can play a supporting role in coordinating the often bilateral activities of the Member States.

Cooperation

Cooperation with institutes from different countries or with institutes in one or more developing countries is one of the most important areas in which the EU could have added value in respect of the Member States. This applies in particular to cooperation at micro-level.

There has been criticism of the short-term nature of cooperation relationships. The EU could therefore have further added value in promoting long-term multidisciplinary programmes in which the Union, the Member States and countries/regions in the South could participate.

Experience with STD2 and STD3 as well as INCO-DC shows that the programme has a strong bias towards research projects. 'Less emphasis is given to concerted actions, as is done in other programmes.... They often lay the groundwork for cooperative research and help to involve other scientists and institutions.' Greater attention should be devoted to this part of the programme and to support for scientific networks of researchers from Europe and developing countries.

Coordination

The EU could play an important role in preventing duplication and promoting the coordination of research policy and activities in the Member States, and between the Member States and international fora. A first necessary step is to set up a system for information on the research policies and activities of the Member States and then to stimulate the active, mutual exchange of this information. Since the INCO-DC programme has shifted towards a more regional approach, coordination with the bilateral activities of the Member States has become even more essential.

The EU could also have added value by providing developing countries with information on (and helping them to coordinate) procedures, rules and structures relating to research for development in the Member States.

Coordination by the EU can be of importance if decisions regarding research are taken in international fora. Greater influence can be exerted if the EU acts on behalf of the Member States and coordinates their contributions. Statements made to this effect should be converted into concrete policy lines and activities. Coordination should be based on its relevance for the South and the assessment of local needs.

Experimentation and innovation

The EU could play a complementary and synergetic role by directing the efforts of research more towards experimentation and innovation. This could be achieved by drawing attention to interesting developments in the policy and operations of other donors, particularly among the Member States, setting up its own pilot studies, etc. Comparative research and improving the quality of the research conducted by the EU and the Member States

should be given a more central role.

These experiments and innovations could be aimed at the content and the geographical distribution of research and/or at the areas of needs assessment and the development of research methods.

3.10. Coordination with the multilateral activities of research donors

In elaborating the themes, account is taken of the agendas of international organizations; in FP4 the priorities assigned to global problems are partly determined by statements made by international fora. There is little coordination between the Member States and the Community regarding standpoints to be adopted at international fora, in spite of statements on the necessity of such coordination by the Council, the Commission and Member States themselves. 'Lack of political will; persistent economic or commercial interests not allowing for a transparent exchange of information; bad comprehension of the real interests of coordination, which is still too often perceived by the Member States as a means to control the Commission's activities; non-respect of the (political) binding nature of certain resolutions; absence of appropriate monitoring mechanisms of the principles adopted by the Council on coordination' are all reasons given by the Commission for the failure to coordinate effectively in international fora.²¹

More recently, the Council has once again stated that 'coordination between the Community and its Member States, consultation in international organizations and at international conferences, as well as cooperation and coordination with other donors, should be intensified'.²² Recently the first concrete steps in this direction have been taken in the field of agricultural and natural resources research. This is the European Initiative for Agricultural Research for Development, EIARD.

3.11. Coordination with developing countries

As the STD programme has progressed, increasing attention has been devoted to coordination with and the involvement of developing countries in the formulation and implementation of policy. Projects carried out under STD3 had to be clearly in the interests of the developing countries concerned and to correspond with the priorities of their research policy. Experts from developing countries are involved in the assessment of new projects and evaluation of the programme.

The very gradual shift towards more problem-oriented aspects is also being further implemented in the current INCO-DC programmes. The intention has been expressed to maintain a continual dialogue with the countries in the region concerned to determine regional research priorities.

3.12. Cooperation

The main feature of the INCO-DC programme is that cooperation is *with* rather than *for* developing countries. The programme's main purpose is to provide a link--a mechanism that enables scientists from developing countries to keep in touch with the European scientific community. The resulting competitive process encourages good quality research, one effect of which is to reduce brain drain. Mutual benefit is one of the key principles of the INCO-DC programme.

Cooperation is thus one of the most striking aspects of European research for development. Intra-European cooperation has always played a central role in the STD programme. North-South cooperation has increased over the years, although there has been some doubt about the long-term sustainability of the relations established. In addition, the nature of the activities varies greatly: teams from the North are particularly involved in the formulation of research proposals and plans and in training, whereas those from the South typically take part in implementation activities. 'Funding for participants from developing countries appears to remain quite modest compared with the funding for the participants in the Member States'.²³ Project proposals from the South have also proved in practice to have little chance of funding.

In the past, it was difficult to get South-South cooperation off the ground, only receiving explicit attention within the AVICENNE programme. A proposal in the INCO-DC programme always to cooperate with a minimum of two

²¹ *Procedures for coordination between the Community and its Member States at policy and operational levels*, Commission of the European Communities, COM (93) 195 final, 10-05-93.

²² 1849th session of the Council of Ministers for Development Cooperation, 01-06-95, 7566/95.

²³ 1995 *External Monitoring Report on the specific programme Cooperation with Third Countries and International Organisations*; January 1996.

partners from the South was ultimately rejected. Within INCO-DC Priority is given in regional programmes, however, to projects involving two or more partners from different developing countries. Currently, most projects involve two or more partners from the South.

3.13. Trends in research for development

Since the EU first became involved in activities in the area of research for development, a number of general trends have been identified, some of which develop very gradually. These include the following:

- from a bilateral to a regional approach
- from a 'science-led' to a 'development-led' orientation in the programme
- from individual, unrelated projects to greater integration
- from monodisciplinary projects to a more multi/interdisciplinary approach
- towards greater involvement of developing countries
- towards closer coordination horizontally (with other EU activities) and vertically (with the activities of the Member States)
- from gradual budget growth to a sharp fall in available funds
- no radical change in the choice of main themes.

Some of these developments have hardly been put into effect in practice, if at all. Others do not go far enough and will require further development and adjustment. In the following chapter we shall examine a number of options for development in the near future.

4. Recommendations for future policy

The previous chapter outlined the main problems and policy issues relating to the development of EU policy on research for development. This chapter presents the Council's conclusions and recommendations.

A European strategy for S&T cooperation with developing countries

First and foremost the EU should formulate a comprehensive strategy for S&T cooperation with developing countries.

Such an EU strategy should:

- take the imperative of sustainable development as a point of departure;
- elaborate on the importance and the role of S&T for development;
- explore the options for real research partnerships and mutual benefit;
- take into account the increasing differentiation between developing countries and, as a consequence, the need to design country- or region-specific support mechanisms;
- be based on a continuous policy dialogue with developing countries on the role of S&T for development and the needs and priorities of these countries;
- emphasize a society-driven approach and give priority to research which is relevant and useful for the development process;
- integrate and coordinate existing EU policy instruments (collaborative research projects, capacity building and technology transfer);
- coordinate efforts with initiatives and activities of the Member States and multilateral donor agencies.

Differentiation between developing countries

The ultimate goal should be cooperation on an equal footing. In most cases, given the large differences between researchers from Europe and the developing countries, this goal is still far away. Therefore, consideration should be given to the formulation of a policy that reflects the increasing differentiation between developing countries. The first steps in this direction have, in principle, already been taken in FP4, in which a number of 'regular' research programmes have been opened up to developing countries. This participation can be fruitful only if there is genuine cooperation on the basis of mutual interest. In practice, this has hardly got off the ground.

Cooperation with developing countries with more advanced research systems could be aimed more at equal scientific partnership; for poorer countries with weaker research systems (in particular because of a lack of financial resources and lack of an enabling environment), the emphasis could be placed on capacity strengthening, with cooperation on more equal terms as the ultimate aim.

The EU should take into account the increasing differentiation between developing countries and design country- or region-specific policies and support mechanisms that combine a mix of policy instruments attuned to the requirements and needs of the particular country or region.

Improving the policy dialogue

At present, research priorities in the INCO-DC regional programmes are expected to be determined in a 'continual dialogue with developing countries'. Questions remain on how this is being done in practice and on just how much influence developing countries ultimately have on the formulation of policy and the determination of policy priorities.

The policy dialogue initiated by the INCO-DC programme should also encompass other EU activities relating to S&T cooperation with developing countries, within the realm of DG8 (development cooperation) and DG1B (international relations). Such a dialogue can be helpful in identifying national needs and priorities, including those in the area of capacity building and technology transfer. However, it is the stakeholders in the South who should organise and steer the process.

A policy dialogue with developing countries on needs and priorities should be the main point of departure when formulating country- or region-specific S&T policies for development. Care should be taken to ensure that the relevant actors in developing countries are involved and that research themes do not reflect only the needs of the national authorities in developing countries.

Needs assessment

Research for development must be relevant and useful to developing countries, in that it contributes to the

solution of their socio-economic and environmental problems. It should, in other words, be driven by the needs of society. Such a starting point has implications for policy making and priority setting, but also for policy implementation and research management.

In recent years, greater emphasis has gradually been laid within the entire Framework Programme on the need to respond to societal needs. A 'science-push' approach has to an increasing extent given way to a 'demand-pull' strategy. With this strategy, DG12 has attempted to ensure that choices made in the area of research are as relevant as possible from the viewpoint of the market and (European) industry.

In addition to cooperation with industry, the Commission stresses the importance of contact with the users of research results. 'At the programme implementation stage, [...] talks with industry [...] must be stepped up by meetings on selected topics, with particular emphasis on contacts between "users" and "producers", but also with relevant research centres and universities.'²⁴

The Council of Ministers for Development Cooperation has recently formulated a set of principles for research for development, which are in line with the above views. These include the close involvement of recipients in setting priorities for project aid and the way activities are carried out, and closer collaboration between researchers and users to ensure a better distribution and appropriation of research results. These principles should therefore be further elaborated and integrated into the formulation and implementation of policy. This is particularly urgent as one of the criticisms to emerge from the evaluation of the STD2 programme was that, in almost 40 percent of cases, research projects were not related to the priorities of the recipient developing country.²⁵ The Council of Ministers added that mobilization of European research expertise should be based on the needs of the developing countries concerned. Furthermore, it should focus particularly on the needs of 'the poorest and least advanced countries and the most deprived groups within them'.

Individual Member States have gained experience with needs assessment and bottom up approaches to priority setting and research programming. These could be studied in more detail to draw lessons so as to prevent 'reinventing the wheel'.

There is also a need to further develop methodologies and to train clients how to use them.

Needs assessment activities should be integrated with ongoing initiatives and existing mechanisms for demand articulation in order to avoid duplication and overlap. Many developing countries are burdened by too many disparate donor initiatives. Needs assessment studies should therefore be better coordinated and directed at filling research gaps. It is not helpful to continue adding new free-standing activities.

It is recommended that the EU launch a study to review the experience of the Member States with needs assessment and bottom-up approaches. The outcome of such a study could also help to assess how methodologies should be further developed and enhanced.

Capacity building

Evaluations of the STD programme show that relationships between European researchers and counterparts from the South tended to be short-term, and that the division of responsibilities and activities has been very unequal. In addition, the STD programme was 'largely science-led in its decisions about funding', there was a strong bias in the initial phase towards the strengthening of research capacity in Europe, and the projects were limited in scale and duration.

The earlier mentioned principles formulated by the Council of Ministers for Development Cooperation state that the aim of providing scientific expertise from Europe should be to strengthen local research teams, ensure that local researchers stay in--or return to--their own countries (to stop the brain drain) and promote the gradual appropriation and sustainable development of research capacity in the recipient country.

The sustainable development of research capacity in Southern countries requires a long-term approach that is process-oriented rather than project-oriented. It should encompass investments in all areas that were set out in

²⁴ *Research and technological development; achieving coordination through cooperation*, Commission of the European Communities, COM(94) 438 final, Brussels, 19-10-1994.

²⁵ *Evaluation of the Community Programme on Science and Technology for Development - STD (1987-1991)*, Commission of the European Communities, June 1992.

section 3.4 (human resources, institutions, networks, enabling environment). Sustainability is inherently unachievable if the research lacks relevance for the country itself.

A process-oriented, long-term and coherent approach towards research capacity is needed.

Evaluations of the STD programme have also suggested that it is not research projects that have primary importance for institution strengthening, but that 'perhaps one of the most significant contributions of the STD programme to institution strengthening has been through its support for scientific networks'.²⁶ Since STD2, support for scientific networks has been accepted as an approved activity for funding. Networks are of particular importance for countries and institutes in the EU which do not have traditional ties with countries in the South and which have no experience of North-South cooperation. Training--which has also become a formal part of the programme since STD2--is now also seen as more than just a by-product of research.

Support for North-South knowledge networks should be further extended.

Integration and coordination of EU policy instruments

Within the framework of the Lomé Convention, the ACP countries give little priority to research. The attention of the poorer countries is focused on short-term problems. Often it is not felt that long-term priorities, such as research, are also of importance. In addition, many researchers in the developing world have insufficient contact with decision-making and policy-making bodies in their own countries, as a result of which national channels do not relay requests for support with sufficient force for research to be funded through the Lomé procedures. The contribution of DG1B and DG8 towards capacity building should be stepped up. In the context of DG8 this may imply policy dialogue, sensitization of leadership, demonstration of return to investment, etc. DG12 could benefit from the expertise acquired through the programmes of DG8.

The initial steps taken recently to give greater attention to research within DG8 and in the priority setting of developing countries should be further developed. DG8 should assist DG12 with its needs-assessment activities.

Ties between the various DGs involved in the field of research for development--DG1, DG8 and DG12--could in various cases be further strengthened and solutions sought to break through the current compartmentalization of activities. The recent shift in the INCO-DC programme towards a more regional approach could be a step in the right direction if regional priorities are based on local assessments and linkages with local actors are maintained throughout the whole process. In Africa, a more regional approach is often required in order to develop a critical mass. This kind of cooperation should go hand in hand with regional cooperation in the economic and cultural spheres.

A better articulation between the different instruments and mechanisms of DG1, DG8 and DG12 for scientific cooperation and strengthening research capacity, should be explored. The current, more regional approach could be further developed into broad-based, longer-term, multidisciplinary cooperation programmes, taking into account needs assessments and priority-setting activities on local and national levels.

Coordination between the EU and the Member states

The subsidiarity principle, on which the division of tasks between the EU and the Member States should rest, states that the EU may act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community. In section 3.9, we made a number of suggestions for applying the subsidiarity principle in the area of research for development.

Although the INCO-DC programme is in some respects complementary to activities of the Member States, the scope for application of the subsidiarity principle to research for development should be investigated further.

A new initiative has been under way since last year to search for a more integrated common policy in the field of international agricultural research for development between the EU, Member States and international organizations. This initiative could possibly serve as a model for further coordination of research between the Member States and the Community.

Problems of coordination and coherence of policies are not unique to the EU. On a national level, similar problems of cooperation and coordination between research and wider development issues occur between the

²⁶ *Evaluation of the Community Programme on Science and Technology for Development - STD (1987-1991)*, Commission of the European Communities, June 1992.

government aid and science departments. Although in theory cooperation is encouraged, practical impediments are often too strong. The advantages or synergy of coordination in the short and long run should be spelled out more clearly. A starting point for better coordination is the sharing of information. Coordination should be based on its relevance for the South and the assessment of local needs.

In the developing countries the science sector is seldom one of the priority areas. Further underpinning of the strategic importance of research for development in the short as well as in the long run should take place.

Consciousness raising, dialogues and information sharing on a policy level between different actors should be stimulated and lead towards a coherent policy on research for development for the EU, as well as for the Member States and developing countries.

EU policy instruments: the Fifth Framework Programme

The development of coherent EU policies towards developing countries is fostered by research that is based on a thorough knowledge of those countries and conducted in cooperation with them. Such policies in the long run could also improve the EU's own industrial competitiveness.

The new global relationships require a conscious focus on specific policies. They also require research partnerships between Europe and other parts of the world. Such relationships offer new opportunities for mutual benefit. The INCO-DC programme provides an interesting model for this new type of partnership. This situation should be the starting point for further improvements, which could be implemented with the Fifth Framework Programme.

Experiences with the determination of priorities for the ACP countries within the framework of the Lomé Convention as well as with the opening up of the some regular FP4 research programmes to developing countries, underline the need for a separate programme with an earmarked budget for research for development. This particularly applies to the poorest countries and countries where national research systems are underdeveloped.

A separate programme with an earmarked budget should also help to integrate and concentrate policy on research for development, e.g. via a programme management committee which has more experience and involvement with this specific area of research. It could also strengthen the role of the social sciences and the humanities, which are underrepresented in the present INCO-DC programme. Such a separate programme for research for development should be the starting point for a more coherent policy within the EU on science and technology for development, including provisions for the maintenance and strengthening of research capacity.

A special programme for S&T cooperation with developing countries within the framework of FP5 is crucial for policy and activities in the area of research for development. The social sciences and the humanities should also be incorporated into the programme. The programme should have its own management committee consisting of expert advisers from EU and developing countries.²⁷ The possibility of earmarking funds for research should be considered by the DGs responsible for development cooperation (DG1B and DG8).

At present, the INCO-DC programme applies two sets of criteria when assessing project proposals: those related to scientific quality and those related to relevance for society and development. The assessment procedure is such that scientific quality is more important than relevance for society. The Council takes the view that a society-driven approach to research for development implies that both sets of criteria are equally important and should be reviewed in a consistent and coherent manner. The review procedure developed by NWO/STW in the Netherlands is an interesting example here.

Furthermore, the Council notes that the second set of criteria is still relatively 'underdeveloped' and poorly operationalized. This relates especially to criteria indicating how users of research results have been involved in the different stages of the research process.

The project assessment procedure applied within the INCO-DC programme needs to be adapted. Criteria pertaining to relevance for development should be more clearly defined and elaborated and given more weight in the assessment procedure.

²⁷. Advisors should represent a balance between scientific and societal interests. Because the present rules are incompatible with the suggestion to appoint advisors from the South, a creative solution is required.

The resources of the programme are too limited, considering the objects and scope of the programme. This is also reflected in the extremely low ratio of projects which acquire funding to the proposed projects. Valuable time and resources are wasted both by researchers and by the panels of experts who assess the proposals.

In addition to increasing the budget for the INCO-DC programme, there is a good case for instituting a preliminary round, based on short proposals setting out the main research ideas. Those selected could then be further elaborated into full proposals, specifying the information necessary to assess the societal and scientific relevance on the basis of explicit criteria.

The budget for the INCO-DC programme should be increased and the creation of a preliminary round for proposals should be considered.

As a result of the integration into INCO-DC of all programmes aimed at research for development, a number of programmes have disappeared, including the ISC programme. The structure of ISC made it very attractive for developing countries; the fellowships and workshops allowed researchers from the South to establish contacts, helped to identify research needs, enabled joint proposals to be formulated, etc.

INCO-DC offers possibilities for funding preparatory, accompanying and support measures as well as 'concerted actions' such as seminars, studies, workshops, training & mobility and dissemination. In practice, and contrary to other Framework Programmes, these possibilities are hardly used in the INCO-DC programme, in spite of its contribution to the strengthening of research capacity and the added value in relation to bilateral activities.

More attention should be given to accompanying measures and concerted actions within the INCO-DC programme. Consideration should be given to reserving a substantial portion of the funds for these activities.

Contact group

At present, there is no place where the European Commission and the Member States can formally discuss policy on research for development in its broader sense, where genuine coordination can occur, where the best of the policies and activities of the various donors can be extracted and brought together, and where lessons can be learned from the negative and positive experiences of others. The EU could play a complementary and synergetic role in the area of comparative research and in improving the quality of the research conducted by the individual Member States and the Commission itself.

A formal or informal 'contact group' should be set up, which could act as a synergetic 'meeting point' from where recommendations could be made both on the themes and the geographical distribution of research and in the areas of needs assessment and research methods. It would also be useful to set up pilot studies to test innovations.

The Council sees this as a significant step towards the achievement of a clear (and perhaps new) role for the EU. It complies with the subsidiarity principle and creates greater scope for developing and renewing policy on research for development.

Such a group could also formulate initiatives for further develop the concept of 'sustainability', not only in environmental terms but also at the political, cultural and economic levels. In addition, it could investigate aspects of research for development specific to Europe (or the prospects for developing these); this could occur in the light of the policies and activities of others in this area, such as the United States or Japan.

In addition to being a think tank concerned with policy, the group should also devote attention to innovation, the further development of ideas and the scope for implementation.

The substantive and organizational aspects of such a group remain to be worked out. These concern its freedom to operate independently, the nature of its relation to the INCO-DC committee and to the other relevant committees of DG1B and DG8, whether it should be temporary or permanent, its degree of flexibility, and the procedure related to the appointment of its membership. Members of the contact group should be linked up with the official national representatives of their country in the various relevant bodies of the EU.

In any case, the group should not be too large and its members should participate on the basis of personal competence and expertise. Early tasks could include further elaboration of the recommendations of this report and of the RAWOO workshop in Noordwijkerhout. If established in time, it might also fulfil a role in the international conference which is planned during the Dutch presidency of the EU in March 1997.

Appendix 1

Workshop Report

Towards a European Science and Technology Policy for Development

Noordwijkerhout, The Netherlands, 12-13 June 1996

Preamble

This report is a summary of the proceedings of the 'Noordwijkerhout workshop'. Many of the fruitful suggestions made during the Workshop have been incorporated in the final text of the RAWOO advisory report to the Minister. To avoid duplication, we have opted here for a comprehensive account of the major issues that were discussed. The following is not an account of all individual contributions to the workshop discussions but limits itself to conclusions that were generally shared.

Introduction

The aim of the workshop was to encourage the formulation of ideas regarding the future design, content and organisation of European Science and Technology policy for development. The workshop brought together researchers and policy makers from European Countries (EU Member Countries and other countries), the European Commission and from developing countries (Annex 1, List of participants). To guide the discussion on future European S&T policy, the Council presented a draft advisory report on the issue, prepared for the Dutch government.

Workshop Report

In his opening address RAWOO chairman Professor Emanuel de Kadt welcomed the participants and gave a short introduction on the role and function of the RAWOO and the aims of the workshop.

The Council advises the Dutch government on matters of policy relating to development-related research that is funded through the budgets of in particular the Minister for Development Cooperation and the Ministers of Education, Culture and Science and Agriculture, Nature and Fisheries.

At present, the Council has nine members, representing the research and user communities and three advisory members representing the government departments involved. The Council will soon be extended with five members from developing countries. Three issues are central in the RAWOO perspective on research policy for development: societal relevance, user involvement and more equal North South research partnerships.

Mr De Kadt went into the general aim of the workshop, and encouraged the participants to make the following contributions:

- to draft recommendations that could be included in the advisory report which RAWOO was preparing on this subject;
- to select recommendations for the Fifth Framework Programme, for which preparations were already in full swing;
- to identify themes, interests and possibilities for a follow-up to this discussion of the future of European research policy.

With regard to the latter Mr De Kadt added that the Dutch Minister for Development Cooperation, Mr Jan Pronk, had recently decided to organise an international conference on development-related research and the role of Europe during the Dutch EU presidency in the first half of 1997. The issues put forward during the workshop could be taken up by this conference.

Policy trends

Mr De Kadt then gave the floor to Mrs. Joske Bunders, member of RAWOO and chair of the Preparatory Committee that prepared the position paper and the workshop. Mrs Bunders reviewed a number of important changes and trends that (may) have an impact on research for development. She noted the growing stress that is laid on competitiveness as a change in the context of European research policy. Will this in future become a rule with respect to research for development as well? Although there are similarities between Research & Development and Research for Development (problem driven) the differences are apparent: the latter has a broad focus, and encompasses many actors which makes priority setting and dissemination much more complicated. Over the years the idea of problem orientation and response to needs has taken root in EU research policy. Was priority setting initially the domain of the EU itself, later on the developing countries (individually or regional) were involved in the process. Mrs Bunders questioned however the validity of the present approach: how do we know that we address real problems? Is it possible to set priorities for a region? She noted that the interest in research for development among western researchers is caught between fear for competition from the NICs and fatigue with LDCs. This would call for a differentiation within research policy. The last trend she mentioned was

the growing awareness of the place of research within a process that includes dissemination and utilization. A coherent approach that goes beyond the production of knowledge is required. This calls for coordination between policies, within EU policy (increasingly done by DG8 and DG12), but also in bilateral activities of member states and partner countries in the South. The identification of partner institutions with substantial networking functions with a wide variety of actors/clients is crucial in this respect.

Working groups: summary of discussion

After Mrs Bunders' keynote speech the participants split up into three working groups. Sessions were held on three subjects: 1. Relevance for Development; 2. Capacity Building for Research in the South; 3. Coordination and Coherence of Policies. All working groups discussed the draft report of RAWOO in order to come up with suggestions for improvement with respect to the three subjects covered by the groups. In addition, the groups discussed and made recommendations on the Fifth Framework Programme and the proposed Advisory Group.

Relevance for development

The key question discussed in this working group was how research could be made more relevant for development. The group focused on two more specific issues: the policy and decision making process (the role of policy dialogue and the setting of research priorities) and the structure and management of EU research programmes for development, with specific reference to the future of the INCO/DC programme.

In general participants shared the view that research for development should be driven by the needs of society (society- or demand-driven research) and not by the needs of the research system (science- or curiosity-driven research). Political support and funding for development research can only be secured if research results are relevant and useful for the development process. New institutional arrangements and new incentives are needed to stimulate researchers and research institutes to become more demand-oriented. Research in itself, or research output, is not enough; research should contribute to development objectives and to the building of a national knowledge system.

The participants agreed that S&T policy making and priority setting should be based on a continuous process of dialogue with all actors involved: researchers, policy makers and potential end users of research results. Such dialogues and interactive approaches are not only important at the policy level, but also at the programme and project level. National bodies in developing countries could organise a policy dialogue by facilitating workshops that bring together relevant stakeholders. These bodies should coordinate and integrate their activities with existing initiatives and mechanisms in order to avoid duplication.

Capacity building for research

The working group first discussed the concept of research capacity. In doing so several elements were distinguished:

- training (research as well as research management),
- equipment,
- administrative capacity,
- networks (national and international/regional).

The participants observed that capacity building for research can only be fruitfully pursued in an 'enabling environment'. Good working conditions and support from the policy level are often lacking. The development of research policies are important as well. Many countries lack a research policy at the national level.

Participants also stressed the importance of focusing on the research system (consisting of universities, research institutes, industry), and of improving the links between researchers at universities and research institutions with users (industry, NGOs etc.) and traditional knowledge 'producers'. The sharing of information within the country should be improved, as well as between Southern countries.

Sustainability was considered a key problem of research capacity building. A long list of concerns and threats to sustainability was drawn up: lack of incentives for research, braindrain, donor dependency, lack of accessibility, focus on excellence, different perceptions of needs (politicians versus scientists). How to work towards sustainable capacity building? The working group suggested a variety of means to improve sustainability: reward development orientation within countries; provide incentives for scientists to stay; strive for return on investments; stimulate regional cooperation; foster policy dialogue among leaders.

A stronger emphasis on the issue of research capacity building was recommended. Participants felt a process approach towards capacity building would be better than a product approach. Past practice has tended to focus

on isolated elements of research capacity. Donors should look more at mechanisms (for instance to determine societal needs and to establish links between research, policy and society). A right mix of investments was called for: human resources, institutional capacity and policy capacity.

As for the financial aspects, the group felt that although in the long run the South should be responsible for maintaining its capacity, financial support is still needed for some time.

Not donor-recipient relationships, but partnership relations should prevail, including a long-term commitment towards mutual benefits. Especially young scientists should be involved. It was observed that, due to present emphasis on project funding, partnerships are difficult to attain.

Participants felt the report needed to stress the importance of policy dialogue in relation to science and research policy. Two levels for policy dialogue were distinguished: the policy level and the programme/project level. There is much to learn from historical experiments (like UNDP's) with national policy dialogues. Further development of methodology to formulate priorities with partners in the South was considered very important. The policy dialogue on science and technology should also be part of or accompany major policy conferences (like those of UN).

The working group also gave general suggestions for improving the draft advisory report. These had to do with clarification of aims (main message), concepts (like research capacity building) and addressees. It was recommended that the main attention should be for policy issues, management issues should follow.

Coordination and coherence of policies

In this working group the difficulties and obstacles for coordination were discussed. Participants stated that coordination must not be viewed as an objective, but as a tool. The aim, interest and benefit have to be clear. In short, coordination has to lead to synergy.

Experience shows that in general coordination on a policy level doesn't cause much problems. It is relatively easy to agree on the general terms. Problems arise however when it comes to implementation.

A four step model was presented for voluntary coordination:

1. sharing information
2. sharing the principles in the policies
3. operational cooperation in a specific domain or country
4. common policy

Regarding a European science and technology policy for development, four sorts of coordination were distinguished:

1. within the European Commission (DG1B, DG8 and DG12)
2. between the European Commission and the Member States
3. between North and South
4. between research and wider development issues

Participants felt that the North should first set its own house in order, regarding the differences in strategies, policies, objectives and priorities. A lot of actors are involved in this field and competition for scarce resources is strong. Efforts have to be made that development research will remain a pertinent issue on the national and international agendas.

Also the group observed that in developing countries a research policy is often lacking, as well as a critical mass for research. Research issues are often not on the agenda of decision makers in developing countries because they are not always convinced of the usefulness of research. Also there is too little dialogue between the different relevant departments (like Foreign Affairs, Cooperation, Science). In order to overcome these problems, the value of research needs to be demonstrated and a research policy dialogue should be promoted.

It was felt that at the level of the European Commission, policies between the Directorates General differ. Coordination might work, but not without incentives or without explaining the gains or added value of coordination.

More money for coordination of activities by the Commission is however a problem, as Member States tend to look at a 'fair return' of research funds to their own research teams. At this moment about 60-65% of the funds go to research teams in the Member States, 25-30% goes to research teams in DC's and about 10% is for operational costs at the EC.

Participants agreed that Member States could improve their role. They could change the representations or

delegates in the different management committees depending on the subject which is discussed. They should be more involved in the formulation of strategy papers.

Fifth Framework Programme

In the working groups the Framework 5 Programme and the position of the INCO programme was discussed. Discussions also centred on funding policy and application procedures, and on criteria to assess projects and programmes in terms of their relevance for development.

It was strongly recommended that a separate entity or autonomous programme which deals with science cooperation with developing countries should be continued within DG12.

The scope of such a programme should however be widened; it should not be restricted to the present themes: agriculture, health and natural resources (tends to be based on the strengths of the research sector in the EU, rather than on the needs of the developing countries). It was suggested to include policy research, research on institutional development (e.g. collective action to manage common property resources) and research relating to the implementation of international policy agendas and action programmes, such as Agenda 21. It was also suggested to strive for topics that are of interest for all partners (like energy or environmental technology). In this way a balance between 'global village' issues (environment, sustainability) and 'global market' issues (competitiveness) can be obtained.

With respect to application procedures, it was suggested that it would be worthwhile to explore the idea of pre-proposals: short notes indicating the aims and objectives of the project and the way users are going to be involved in its further development. It was emphasised that such a project development phase would be an important first phase of the capacity building process. Moreover, the present application procedures for the INCO/DC programme could be improved. Too much time and money is wasted with the writing of proposals while only a limited number can be approved. It was also proposed to give representatives from developing countries a say in the management committee of the INCO/DC programme.

The group also addressed the question of assessing research projects and programmes in terms of their relevance for development. The participants came up with some criteria. Proposals should indicate how research can help to overcome development problems; how users have been involved in the process of needs assessment and problem formulation; and how research results will be used and by whom.

Also the question of redefining 'developing countries' was brought up. Some found that certain further developed countries, like Singapore, should be replaced by other countries, for example from the former Soviet Union. Others objected to this suggestion because of the regional approach of the INCO/DC programme. For this approach, regional networks, like ASEAN, are the counterparts. It is not only difficult to exclude one member of such a network, but these countries could also play a valuable role as scientific leader in that region, which is important for South-South cooperation.

Contact group

There was a general feeling that the professional discussion on matters related to S&T policies should be continued. Participants agreed that some kind of 'Study and Advice Group' (as proposed by RAWOO) could be valuable in this respect. Several questions regarding such an independent international group or forum were discussed: To whom does it give advice? Where should it be located: inside or outside EU (North-South)? Who decides who's in? Participants agreed that the group should not be too big, should perhaps be informal and should have a link with the existing management committees. The option of a forum with an open network approach, instead of a fixed structure was discussed as a flexible alternative. Modern communication technologies would make interaction easy.

Concluding observations

There was a general feeling among the participants that issues related to implementation and programme management were overemphasised in the RAWOO position paper. Questions of structure and organisation should follow strategy and not the other way around. Overriding importance should therefore be given to policy development for S&T cooperation with developing countries, not only at the level of the EU but also at the level of the individual Member States. The EU and the Member States should be encouraged to formulate S&T strategies for development. At present, the nature and extent of research for development in the Member States and the policies they pursue are unknown. What is needed is an overview, based on background papers, to bring out the main differences. Such an overview could be an interesting background document for the international conference on development-related research and the role of Europe, which will be held in March 1997. Looking forward to that conference, initiated by Minister Pronk, Mr De Kadt stressed the importance of bringing together ministers of development cooperation and ministers for science and technology policy. It is their separation

which leads to problems around development-related research in both the North and the South.

In addition, three major issues emerged from the discussions:

1. Inequality in North-South research partnerships (how can partnerships be made more equal?);
2. User participation in all phases of the research cycle (how to involve user communities in the design and implementation of research?); and
3. Linking capacity building and research collaboration in a comprehensive approach (equal partnerships are not possible if capacity does not exist).

Mr George Waardenburg (Chief Scientist of the Directorate-General for International Cooperation) gave a first reaction on the issues brought forward in relation to the preparation of the policy conference of March 1997. He stated that the issues were very relevant for this policy conference and would be taken up. He noted that bringing together of the different ministries (Development Cooperation and Science and Technology policy) would imply bringing together different cultures. This will not be easy and cannot be forced. The three major issues will be placed on the agenda of the conference. Background country papers on research for development in the different Member countries could be fruitful, especially if the differences and similarities between them are outlined in a separate document. Mr Waardenburg concluded that a contact group could certainly play a role in the preparation of the conference, and could have a purpose beyond the conference as well.

Statement on FP5

As it had not yet been formally decided whether the new Framework Programme would contain a special programme for research cooperation with developing countries, the participants decided to draw up a general statement.

In view of the following arguments:

- there is a need to capitalize on lessons learned through experience in bilateral and multilateral research cooperation;
- the development of coherent EU policies towards developing countries is fostered by research that is based on a thorough knowledge of those countries and conducted in cooperation with them; such policies in the long run also improve the EU's own industrial competitiveness;
- the new global relationships require a conscious focus on specific policies; they also require research partnerships between Europe and other parts of the world; such relationships offer new opportunities for mutual benefit;
- the INCO/DC programme provides an innovative and unique model for a new type of partnership,

the participants agreed that:

- a special programme for S&T cooperation with developing countries within FP5 is needed;
- this programme should be broad in order to be able to include research on many different societal problems; investigating these there is a need to integrate social sciences and natural and life sciences;
- this programme needs a separate management committee, different from the overall research programme.

Appendix 2

Participants RAWOO Workshop 'Towards a European Science and Technology Policy for Development'
Noordwijkerhout, The Netherlands, 12-13 June 1996

France

Mr J. Gaillard

Institut Français de Recherche Scientifique
pour le Développement en Coopération (ORSTOM)
Centre de Recherche d'Ile-de-France
32, Avenue Henri Varagnat
93143 Bondy Cedex
France

Mr A. Guyot

Centre de Coopération Internationale en
Recherche Agronomique pour le Développement
CIRAD
42, Rue Scheffer
75116 Paris
France

Ms A. de Lattre

Présidente du Comité National de Coordination
pour la Recherche au Service du Développement
Ministère de l'Education Nationale
1, Rue Descartes
75006 Paris
France

Germany

Mr H-J Lutzeyer

Arbeitsgemeinschaft Tropische und
Subtropische Agrarforschung (ATSAP)
Ellerstr. 50
53119 Bonn
Germany

Mr J. Meyer-Stamer

Deutsches Institut für Entwicklungspolitik
(DIE)
Hallerstrasse 3
D-10587 Berlin
Germany

Mr A. Springer-Heinze

Deutsche Gesellschaft für Technische
Zusammenarbeit (GTZ), ABT. 423
Postfach 5180
D 65726 Eschborn
Germany

Ghana

Mr J. Shabani

Deputy Secretary-General

Association of African Universities (AAU)
P.O.Box 5744
Accra-North
Ghana

Great Britain

Mr G. Mustard
European Union Department
Overseas Development Administration (ODA)
94, Victoria Street
London SW1E 5JL
Great Britain

Mr G. Poulter
Senior Natural Resources Adviser
Overseas Development Administration (ODA)
94, Victoria Street
London SW1E 5JL
Great Britain

Ireland

Ms. H. O'Neill
Center for Development Studies
University College Dublin
Library Building - Room 513
Belfield - Dublin 4
Ireland

Norway

Mr O. Stokke
Norwegian Institute of International Affairs
NUPI
P.O. Box 8159 Dep.
0033 Oslo 1
Norway

Mr A. Tostensen
Chr. Michelsen Institute
Fantoftvegen 38
N-5036 Fantoft
Norway

The Philippines

Ms G. Castillo
Dpt. of Agricultural Education
and Rural Studies
University of the Philippines at Los Baños
College Laguna 4031 Manila
The Philippines

Spain

Mr E. Ramos Rodrigues
Instituto Nacional de Investigación y Tecnología Agraria
y Agroalimentaria (INIA)
Subdirector General de Prospectiva y R. Científicas
José Abascal, 56

20003 Madrid
Spain

Sweden

Ms R-M. Bälöv
Department for Research Cooperation, SAREC
Sida
S-105 25 Stockholm
Sweden

Mr A. Grandlund
Department of Research Cooperation, SAREC
Sida
105 25 Stockholm
Sweden

Switzerland

Mr T. Freyvogel
Swiss Commission for Research Partnership
with Development Countries (KFPE)
Barenplatz 2
CH-3011 Bern
Switzerland

Mr U. Herren
Swiss Agency for Development and Cooperation (SDC)
EDA/DEZA, Policy and Research Section
3003 Bern
Switzerland

European Commission

Mr M. de Bruycker
European Commission DG12, B4
Science, Research and Development, INCO/DC
Wetstraat 200
B-1049 Brussels
Belgium

Mr A. Derevier
European Commission DG8
Wetstraat 200
B-1049 Brussels
Belgium

Mr T. Hall
European Commission, DG12, B4
Wetstraat 200
B-1049 Brussels
Belgium

Mr T. Viegas
European Commission, DG12, B4
Science and Technological Cooperation with
Developing Countries
Wetstraat 200
B-1049 Brussels
Belgium

Mr W. van Vuure

European Commission, DG12, B4
Wetstraat 200
B-1049 Brussels
Belgium

The Netherlands

Ms J. Bunders

Amsterdam Vrije Universiteit
Biology and Society Department
De Boelelaan 1087
1081 LZ Amsterdam
The Netherlands

Mr J. van Dam

OWB (H124)
Ministry of Education, Culture and Science
P.O. Box 25000
2700 LZ Zoetermeer
The Netherlands

Ms T. Fogelberg

Chief DGIS DST/SO
Ministry of Foreign Affairs
P.O. Box 20061
2500 EB The Hague
The Netherlands

Mr M. Jansen

Ministry of Agriculture, Nature Management
and Fisheries
P.O.Box 20401
2500 EK The Hague
The Netherlands

Mr E. de Kadt

RAWOO
P.O. Box 29777
2502 LT The Hague
The Netherlands

Mr E. Maan

RAWOO Secretariat
P.O. Box 29777
2502 LT The Hague
The Netherlands

Mr E. Middeldorp

PV-Nederland
Avenue Herrman Debroux 48
B-1260 Brussels
Belgium

Mr B. Mons

NWO/WOTRO
P.O.Box 93138
2509 AC The Hague
The Netherlands

Mr J. Ruitenber

Central Laboratory for Blood Transfusion

P.O. Box 9190
1006 AD Amsterdam
The Netherlands

Mr P. Smits

RAWOO Secretariat
P.O. Box 29777
2502 LT The Hague
The Netherlands

Ms M. Veldhuis

RAWOO Secretariat
P.O. Box 29777
2502 LT The Hague
The Netherlands

Ms T. Velinova

RAWOO Secretariat
P.O. Box 29777
2502 LT The Hague
The Netherlands

Mr G. Waardenburg

DGIS OC
Ministry of Foreign Affairs
P.O. Box 20061
2500 EB The Hague
The Netherlands

Mr F. Werry

DLO Wageningen
P.O. Box 59
6700 AB Wageningen
The Netherlands

Mr G. van Westrienen

RAWOO Secretariat
P.O. Box 29777
2502 LT The Hague
The Netherlands

Appendix 3

List of abbreviations

ACP	Asian, Caribbean and Pacific Countries
AWT	Advisory Council for Science and Technology Policy
BMZ	German Federal Ministry for Economic Cooperation and Development
COM	Commission of the European Community
DGIB	Directorate General for External Relations: Southern Mediterranean, Middle and Near East, Latin America, South and South-East Asia and North-South Cooperation
DG8	Directorate General for Development
DG12	Directorate General for Science, Research and Development
EC	European Commission
EDF	European Development Fund
EIARD	European Initiative for Agricultural Research for Development
EU	European Union
FP4	Fourth Framework Programme
FP5	Fifth Framework Programme
IARC	International Agricultural Research Centres
INCO	Cooperation with Third Countries and International Organisations
INCO-DC	Scientific and Technological Cooperation with Developing Countries
ISC	International Scientific Cooperation
NARS	National Agricultural Research Systems
NWO/STW	Netherlands Organization for Scientific Research/Foundation for Technical Sciences
RAWOO	Advisory Council for Scientific Research in Development problems
RTD	Research and Technological Development
SAREC	Swedish Agency for Research Cooperation with Developing Countries
S&T	Science and Technology
STD	Science and Technology for Development Programme
UNCED	United Nations Conference on Environment and Development

List of RAWOO publications in English

(General Recommendations 1: Health and Illness in Developing Countries; research needs and priorities. January 1984 (*abridged English version*).

(General Recommendations 2: Energy for Survival; research needs and priorities. January 1984 (*abridged English version*).

General Recommendations 3:
International Dimensions of Development Problems;
research needs and priorities. October 1983.

General Recommendations 3a:
Legal Aspects of International Dimensions of
Development Problems; research needs and priorities.
June 1984.

Research and Regional Development in the Province of
West Java, Indonesia;
part 1: The Institutional Strengthening of BAP-PEDA/I-Jabar
in the Area of Research Coordination and Policy Development.
October 1983. (*No longer available.*)

Progress Report 1981-1984 (1985). (*No longer available.*)

International Dimensions of Development Problems
(Kijkduin seminars 24-25 March and 20-21 December
1983), edited by H.J. Mastebroek.

General Recommendations 4:
Food Security in Developing Countries, research needs
and conditions. January 1986.

Working Paper 1:
Towards Autonomy for Women; research and action to support development process. June 1986.

Food Security in Developing Countries (Kijkduin seminar
28-29 March 1985), edited by A.P. Smits. October 1986.

Working paper 2:
Sustainable Land Use in Developing Countries; perspectives
on an integrated approach. November 1988.

General Recommendations 5:
Industrialisation in Developing Countries, priorities
and conditions for research. February 1989.

Industrialisation in Developing Countries (Kijkduin Seminar
29-30 October 1987), edited by A.P. Smits. September 1989.

Policy paper 3:
Solar Energy Research. July 1990.

Publication no. 2:
Criteria for assessing proposals for research
in and for developing countries. August 1991.

Publication no. 5:
Development and strengthening of research capacity
in developing countries. Conference on Donor Support,
edited by Marijke Veldhuis. The Hague, The Netherlands
2-3 September 1993. June 1994.

Publication no. 7:
A medium-term perspective on research for development. Research needs and Dutch research capacity. June
1995.

Publication no. 9:
Building up and strengthening research capacity in Southern countries. A study prepared for the RAWOO by
Frits Wils. August 1995.

Publication no. 10:
Development and strengthening of research capacity in developing countries. Recommendations for Dutch
policy. December 1995.

Publication no. 11:
Research capacity for sustainable development. Report of a field study in Ghana, Kenya and Kerala (India)
conducted for RAWOO by Wesley Monroe Shrum, Jr. April 1996.

Publication no. 12:
Agenda 21. RAWOO/RMNO lectures on sustainable development. July 1996.

Publication no. 13:
Towards a European Science and Technology policy for development. November 1996.