
Danida and Danish Development Research:

Towards a New Partnership

Gunna Sørbo
Johan Helland
Chr. Michelsen Institute
Development Studies and Human Rights, Bergen, Norway

Table of Contents

Executive Summary	34
1. Introduction	40
The Report	40
Development Research: Needs and Challenges	41
Denmark's Development Policy	43
Implications for Research and the Assessment of Research	44
A Note on Research and Policy Making	46
2. Context and Structures of Danish Development Research	48
The Danish Research Landscape	48
Some Issues in Danish Research Policy	50
The National Research Strategy	50
Development Research in the National Research Strategy	51
Political Agreement on Principles for Research Policy	51
University Performance Contracts	52
Resources	54
The Proliferation of "Cigar Boxes"	58
Units	60
Universities	60
Research Institutes	61
Research Councils	61
Danish National Research Foundation	63
Vækstfonden	63
GTS Institutes	63
Private Foundations	64
Research Advisory Boards	65
DANCED	65
Danida and Research	66
Council for Development Research	68
The Bilateral Programme for Enhancement of Research Capacity (ENRECA) in Developing Countries	70
Danish Research Centres	71
International Research	73
Networks	74
Other Research Support	74
Status	75

3. Mapping Danish Development Research	76
Funding Sources	76
Distribution of Danida Resources	78
Review of Danish Development Research	80
Social Sciences	80
Health	81
Agriculture and Natural Resources	83
4. Main Issues in Danish Development Research	86
Introduction	86
The Danish Research Arena	87
Hard and Soft Development Research	89
The Relationship between the Danish Research Community and Danida	90
Development Research in Denmark: Different Meanings and Institutional Ambiguities	91
Research as Aid: Capacity Building and Research Co-operation	94
Danida: Organisation and Capacity	95
Need for a New Deal	96
5. Options for Future Danida Support to Development Research	97
Directions for the Future	98
Towards a Strategy for Development Research	99
Capacity for Research Management	101
Option A	102
Option B	104
Annexes	
1. 'Cigar Boxes' in the Danish Research Agency	109
2. Danida Research Funding outside Department for Development Research (St.S4)	111
3. A Brief Overview of Development Research in Denmark	114
4. Development Research in Sweden and the Netherlands: Priorities, Aspects of Funding and Organisation	128
5. People Consulted	134

Executive Summary

The Report

This report is an appraisal of Danida support to the Danish development research sector. It addresses the challenges that the sector faces in the years ahead, particularly regarding (1) the need for development research internationally, in the context of existing and emergent development needs; (2) the utility of present research activities in relation to such needs; (3) the strengths, weaknesses, and problems and opportunities, that the sector faces; and (4) recommendations on research priorities and organisational framework for future Danida relations with the sector.

The appraisal is based on a variety of information sources, including three specialist reviews commissioned to examine the situation in (a) the social sciences, (b) health research, and (c) agriculture and natural resources. Other sources include a survey of Danish research institutions engaged in development research; interviews and meetings with leaders and staff of most of those institutions; a large amount of written material; and meetings with Danida staff, Danish researchers and concerned observers and users of Danish development research.

Needs and Challenges

Development research emerged as a field of study during the 1950s and 1960s. From its beginnings, it has addressed a number of familiar problems – poverty, inequality and weak states – that have always been at the core of why some countries prosper while others do not. Understanding these problems has called for a variety of skills derived from many different disciplines, and require insights into complex local, national, regional and international dynamics. Insights generated by research has contributed considerably to what we know about developing countries. Past investments in research have also led to dramatic advances in many areas such as agricultural production, health, education and life expectancy.

Knowledge generated in the past continues to be important in understanding the problems facing peoples and countries of the South, as well as countries in transition. But simultaneously, the world is changing rapidly and many persistent problems of underdevelopment have become global issues, with causes and consequences that go beyond the specific context of developing countries.

Globalisation is often used as a blanket term to describe the rapid changes we have experienced in recent years – the extensive and worldwide flow of goods, services, capital and information. But globalisation is a two-edged sword in terms of the changes it generates. On one hand, it contributes significantly to improved living standards of large numbers of the world's people and has everywhere increased pressures to improve conditions as well as institutions of governance. But along with such positive trends, globalisation raises the spectre of further marginalising those who have not benefited from the increased flows of goods, services, capital and information. The knowledge “explosion” associated with globalisation contributes to an increasing knowledge divide,

and only those societies that become “knowledge societies” are seen as having prospects for future success.

Implications for Development Policy and Research

Recent developments have important implications for Danish foreign policy and development co-operation as well as for the ways in which we assess the role of development research. Over the last few years, Denmark’s development policy and activities have undergone a continuous adjustment to new challenges. This is reflected in the new policy document *Partnership 2000*, which i.a. confirms that development policy is an integral part of Denmark’s foreign policy; places new emphasis on human rights and democratisation, globalisation and its various dimensions, as well as conflict prevention and management; and reiterates that Denmark will continue to play an active role on multilateral arenas.

Recent developments also challenge the Danish and international research community in a number of ways. There are several points to be made in this regard:

- It is necessary to take a broad view of the concept of development research and what may be justifiably be seen to belong to it
- The legitimacy and importance of development-related research – and the educational activities that accompany such research – do not simply derive from their role in development assistance
- There is a need for preparedness in terms of building and maintaining a broad Danish research capacity
- Those engaged in development research should devote more time and effort to understanding issues across different scientific disciplines
- There may be a larger role for research to play as an important aid intervention area in its own right.

Danida and Research

Danida is the dominant source of funding for Danish development research, which is perceived by both researchers and research policy makers as being within the domain of development co-operation rather than within the domain of national research policy. The level of funding has shown a steady increase throughout the 1990s and includes allocations to:

- The Council for Development Research (RUF)
- Four Danish research centres (Centre for Development Research (CDR), Danish Bilharziasis Laboratory (DBL), Danish Government Institute of Seed Pathology (DGISP), and Danish Forest Seed Centre (DFSC)
- The Bilateral Programme for Enhancement of Research Capacity in Developing Countries (ENRECA)
- International Research
- Networks and Other Research Support.

Additionally, Danida finances research activities in several other channels of funding in the bilateral as well as the multilateral programmes. These activities are difficult to identify and assess.

Main Issues

The three specialist reviews commissioned as part of the appraisal portray a positive picture of much of the Danish development research. Within health research, the quality and volume of research output are deemed to range from good to very good; much of the work being done in the field of agricultural and natural resources research is considered of high quality; and in the social sciences, performance may be more uneven, but there are a number of individual researchers who are prolific writers with excellent track records. In all three areas, there are many examples of outstanding work being carried out by Danish researchers, sometimes in close co-operation with colleagues from developing countries. The research networks that have been established in different areas and with Danida-funding, perform well and have become useful instruments for better co-ordination, dissemination of research and new initiatives.

Overall, then, Danish development research does not have a quality problem. However, there are a number of worrying trends and features that need to be addressed. They can be dealt with in terms of four interrelated sets of issues:

- The Danish research community is small and, in several important areas, research efforts are patchy, fragmented or non-existing. Given current and future needs for knowledge, arising, for example, from an ambitious Danish development policy agenda, issues arise regarding priorities, funding, sustainability, possible synergies, organisation and co-ordination.
- A large part of Danish development research is not mapped onto Danida's priorities and is supply-driven rather than demand-driven. This raises issues regarding Danida's "drawing rights" in Danish research and the balance between instrumental research, designed to solve problems of users and policy makers, and "blue skies" research, where researchers are left to pursue their own ideas in ways that may take them – and us – in unexpected directions.
- Despite recent improvements, the three reviews all point out that the links between Danida and the Danish research community are still generally weak, and that major efforts must be exerted to rectify the situation, both because Danida has an ambitious development agenda that needs to be supported by research, and because it is necessary to achieve a better return on Danida's considerable investment in development research. Two of the reports argue in favour of a complete overhaul of the present funding and organisational structure to achieve such objectives.
- Efforts within research co-operation and capacity-building through the ENRECA Programme are commendable and important but insufficient to help build research capacity in Danida programme countries in a systematic and integrated manner.

The ambiguity that prevails in the relationship between Danida and the Danish research community is an important issue. The relationship is not based on any clearly articulated policy of what Danida wants to achieve, or by a strategy guiding Danida towards whatever goals it has set for itself in the field of research.

Directions for the Future

Irrespective of the level of ambition and the options for the future chosen, there is a need for a clarification and articulation of:

- A national strategy for Danish development research
- Danida's role in supporting development research in terms of (a) contributions to the international body of knowledge, and (b) contributions to establish increased capacity for research in developing countries
- Danida's own needs for research and development services in the exercise of its mandate.

At Danida, there is also a need for additional capacity for research management. This should not be seen as an issue of staffing levels only, but equally important is the location of research responsibilities within Danida's organisational structure.

Options

The review team basically sees two options for future Danida support to development research. The first involves mostly modest changes and may be characterised as tinkering with the system in the hope that minor (but perhaps incremental) changes may be sufficient to release present tensions and produce synergies and improved co-ordination. The second option is more radical and involves a more thorough overhaul of the existing set-up.

Option A

This option would seek to maintain the present basic structure of the four research programme allocations, but would introduce the following changes:

- A more active engagement by Danida towards RUF, particularly with regard to
 - Marshalling support for specific research programmes where Danida sees a long-term need to build Danish capacity.
 - Promote links and obtain better synergies with the other government research councils within specific programme areas.
 - Increase transparency and insight into RUF's work by e.g. arranging thematic conferences and national priority-setting exercises.
- Within the ENRECA programme, a number of recommendations have been made in the context of the recently concluded evaluation. The most important of these would seem to involve:
 - Better co-ordination and linkage between ENRECA projects to activities funded by RUF (particularly Ph.D. fellowships) or to Danida-funded sector programmes in the host country.
 - Increased attention to institutional assessments of the host research institutions to promote improved strategic selection of projects and sustainability. If ENRECA projects are to depend on the active involvement of Danish researchers, the projects must be attractive in the context of Danish research careers.
 - Increased involvement of developing country researchers at the overall programme level.
 - Increased concern for research opportunities for developing country scientists after Ph.D. training or after the ENRECA project ends. Options include opening up

RUF for research proposals from developing countries (with or without the participation of Danish researchers); the creation of research endowment funds managed by regional organisations; or the creation of a second generation of ENRECA projects with an emphasis on South-South collaboration. Under this option, Danida would still maintain funding responsibility for the four research institutes under its purview, but should consider the introduction of “performance contracts”. These may require that mandates and basic agreements be re-negotiated to allow Danida greater influence in setting research agendas and priorities, e.g. by reserving parts of the annual budget grant for a particular “negotiated projects” portfolio or for longer-term programme funding.

- Danida may decide to pursue an even more active dialogue with the IARCs which presently receive the bulk of Danida’s support to international research, with a view to
 - Promote better contact with and increased interaction between IARCs and Danish research institutions.
 - Promote closer contacts between the IARCs and NARs, in the context of Danida-funded agricultural sector development plans in Danida programme countries.
 - Increase use of earmarked funds or a competitive bidding process between IARCs to promote particular Danish policy initiatives or to cover specific research needs identified by Danida.

The main tenor of the proposals made under Option A basically involves an alignment of Danida research policy with national research policy in terms of allowing the research community to carry out high-quality research on its own terms, but also strengthening the orientation of research towards relevance for Danida, and ensuring that the researchers communicate to the public and/or the responsible funding agency the goals and priorities governing the research in question. In the context of Danida, the issue is also one of resolving the many ambiguities that characterise the relationship between Danida and the research community. The aim would be to allow Danida to articulate clearly what it expects from the research community with regard to contributions to Danida’s overall policy aims of reducing poverty.

Option B

This more radical option for future Danida management of development research aims to contribute to the same policy goals as Option A. However, the changes implied would be more far-reaching in terms of structural changes. It includes the following elements:

- Danida should acknowledge that RUF is basically a structure for funding Danish research contributions to the international body of knowledge on developing countries and the many aspects of the development process. There are many other sectors of public life that share this interest. Danida should consider transferring RUF to the research council structure. The main arguments for this move would be
 - that Danida has little influence over what RUF actually does, but could still influence the research agenda through e.g. allocating funds for specific programmes or “invitational areas”;
 - that RUF sees the research community rather than the development practitioners as its primary constituency;
 - that a transfer might bring about significant improvements in terms of staffing level as well as new possibilities to co-operate with and influence the research agenda in the “regular” research councils (synergies, expanded funding); and

- that RUF is not a R&D department for Danida and the utility of its research output cannot be judged in terms of its contributions to operational issues in Danida.
- The second major structural change proposed under Option B involves the upgrading of development assistance efforts within research and higher education. The importance of this sector has long been recognised and although the ENRECA programme is valued in its own right, it is generally accepted that ENRECA is inadequate in terms of making a large impact in a sector that has been grossly neglected for many years.

Danida has a clear policy position with regard to the importance of supporting a viable research sector in its partner countries. The next step would seem to involve a more active promotion of this view in country programming exercises.

Research co-ordination and the implementation of a concrete assistance programme to the research sector where this is agreed in country programmes should be a main task for Danida's Research Department in the future.

- Option A proposes that Danida should more actively use performance contracts to structure its relationship with the four research centres. Option B would imply a more differentiated approach, yet one that attempts to further align Danida policies with national research policy. While there may be scope for bringing the three "technical" institutes closer to university structures (with the possible exception of the Danida Forest Seed Centre), the status of CDR, with its broad mandate, would seem to call for other arrangements. There would seem to be two main options: CDR could either become a regular sector research institute, still under Danida, or maintain its more open, academic mandate as a specialised research institute like e.g. COPRI. While recognising that there may be different compromises between the two (sub)-options, an attempt is made to spell out some of the implications of adopting one or the other.

Neither Option A nor Option B is about saving money. The purpose of both options is to clarify policies and structures and create a more coherent and less conflict-ridden structure for Danida's future management of development research.

1. Introduction

The Report

This report is written for the Commission on Development-Related Research Funded by Danida. The Commission has been appointed by the Danish Minister for Development Co-operation and its main task is to appraise the role of the Danish development research sector and the contribution it can make to international research as well as to Danish development goals.

Among the factors that have led to a need to reconsider the future of the sector, are, according to Terms of Reference, “(a) the formulation of Denmark’s new development strategy *“Partnership 2000”*; (b) the need to develop new capacity on emerging problems, for example globalisation, trade and financial liberalisation, AIDS, social exclusion, sector wide approaches, etc; (c) the development of indigenous research capacity in developing countries, in itself much to be welcomed, but posing new challenges for the Danish development research sector; and (d) a multitude of funding mechanisms in Danida”.

While recognising that much research is supported by other sources, the study focuses on development research funded by the Ministry of Foreign Affairs/Danida. However, it attempts to address more generally some of the main challenges that the sector faces in the years ahead, particularly regarding: 1) the need for development research internationally, in the context of existing and emerging development needs; 2) the utility of present research activities in relation to such needs; 3) the strengths, weaknesses, and problems and opportunities, that the sector faces; and 4) recommendations on research priorities and organisational framework for the future development of the sector (see Terms of Reference Annex 1 to the overall Report).

The assessment is based on a variety of information sources. As part of the appraisal, three reports were commissioned to review Danish development research in the areas of (a) the social sciences, (b) health research, and (c) agriculture and natural resources.¹ To a large extent, this synthesis report is based on the findings of those three reports. A fourth report was also commissioned by Danida, the purpose of which was to inform the Commission about current thinking relevant to the funding of research for development.² Other major sources include a survey of Danish research institutions engaged in development or development-related research, and interviews with leaders and staff of most of those institutions; a large amount of written material (evaluation reports, policy documents, proposed programmes etc); a questionnaire sent to members of the Association of Development Researchers in Denmark (FAU); meetings with Danida staff of several departments; with large parts of the Danish research community (including one major conference with the Commission on Development Research);

1) *M.A. Mohamed Salih and C. Thomas: “Review of Danish Development Research in the Social Sciences”;*
C.O. Solberg and P. Streefland: “Report on Danish Health Research Assistance in Developing Countries”;
M. Blackie, P. Blaikie and M. Stocking: “Agriculture and Natural Resources Research for Development – Specialist Review of Danida Funded Research”.

2) *E. Arnold and M. Bell: “Some New Ideas about Research for Development”.*

with Danida Board members; and with a number of concerned observers and users of Danish development research (including staff of NGOs and consultancy firms). For comparative purposes, visits were made to the Netherlands and Sweden to look into current priorities, aspects of funding and organisation (see Annex 4). A visit was also paid to the Danish embassy in India (in connection with other assignments), both to discuss Danish development research as seen from the point of view of an embassy, and to consider how funds available to the Embassy under the Local Grant Authority may be used to support local research institutions.

The report has been written by Johan Helland and Gunnar M. Sørbo, both of the Chr. Michelsen Institute (CMI). During the assignment, the CMI team was assisted in their efforts by Trine Paludan Jakobsen of Development Associates a/s.

Development Research: Needs and Challenges ³

Development research emerged as a field of study during the 1950s and 1960s. From its beginnings, it has addressed a number of familiar problems – poverty, inequality and weak institutions – that have always been at the core of why some countries prosper while others do not. Understanding these problems has called for a variety of skills derived from many different disciplines, and required insights into complex local, national, regional and international dynamics. Insights generated by this research, plus practical experience, have contributed considerably to what we know about developing countries. Past investments in research have also, along with other measures, contributed to dramatic advances in developing countries in areas such as agricultural production, health, education and life expectancy, and provided important inputs into national economic and social policy management. For example, the output of the major cereal grains (rice, wheat and maize) has doubled on a global scale over the past 30-35 years. The credit for this achievement is attributed largely to the widespread adoption of “Green Revolution” technologies – improved seeds of high-yielding varieties, irrigation, fertilisers and other agrochemicals – particularly in populous Asian countries. Science, therefore, has been a significant contributor to the reduction in world poverty.

Knowledge generated in the past continues to be important in understanding the problems facing peoples and countries of the South, as well as in countries in transition. But simultaneously, the world is changing rapidly and many persistent problems of underdevelopment have become global issues, with causes and consequences beyond the specific context of developing countries.

Globalisation is often used as a blanket term to describe the rapid changes we have experienced in recent years – the extensive and worldwide flow of goods, services, capital and information. But globalisation is a two-edged sword in terms of the changes it generates.

On one hand, globalisation contributes significantly to improved living standards of large numbers of the world’s people and has everywhere increased pressures to improve

3) For important parts of this section, we are indebted to M. S. Grindle and M.E.Hilderbrand: The Development Studies Sector in the United Kingdom: Challenges for the New Millennium, Harvard, September 1999.

conditions as well as institutions of governance. Thus “human rights”, “democracy” and “good governance” have become master-terms with powerful echoes from Guatemala and Poland to Russia and China. But along with such positive trends, globalisation raises the spectre of further marginalising those who can't gain access to, or benefit from, increased flows of goods, services, capital and information. Globalisation also brings financial vulnerability, because markets, worldwide, are increasingly interdependent and rapid financial flows can suddenly alter domestic economies. Governments are now less able to protect their citizens from such external financial threats.

In the wake of the *détente* between East and West and the wave of democratisation in a number of Central and East European countries and elsewhere, new conflicts have emerged, some of them “unleashed” because the great powers no longer intervene on the basis of Cold War thinking. Many conflicts have their roots in the societal structure which has characterised several states in the South: conflicts about boundaries haphazardly (from local points of view) drawn by colonial powers; conflicts regarding access to key natural resources; ethnic conflicts of different types, both those which take place in situations where large ethnic groups (like Kurds) do not have their own state, and those which arise from serious conflict in multi-cultural states (like in Sri Lanka). As part of such developments, ideas of nationhood appear to be steadily increasing in scale and regularly crossing state boundaries (as with e.g. Kurds, Tamils and Albanians).

The increasing complexity and interrelatedness of development issues require scholars and practitioners not only to understand them in terms of global context, but also to understand the broader issues that surround them. For example, poverty and inequality increasingly reflect national and global economic dynamics, as more local people are involved in national and international market exchanges. Consequently, those who study local economies must increasingly understand their linkages with government policies and the dynamics of international trade. They must consider global financial movements and labour market trends, shifting technologies around the world, and the social and political linkages of local producers with those who live far beyond their boundaries.

Another good example is research and experience with complex humanitarian emergencies. Such situations are caused by interrelated problems such as war, the failure of the state, ethnic strife, famine and economic collapse. Responding to and planning recovery from such emergencies require diverse knowledge, including public health, anthropology, economics, infrastructure, management, conflict resolution, and environmental science.

Similarly, we increasingly understand poverty and inequality as complex and multi-causal issues. Students of development must draw on many different areas of knowledge to disentangle webs of causality that create and sustain poverty, and to find ways to eliminate it. Furthermore, such interrelated issues emerge and require solutions faster with globalisation, putting new pressure on those who seek to understand and respond to them. These changes mean that those engaged in development research should devote more time and effort to the understanding of issues across national boundaries and across different science disciplines (see below).

While changes in the global landscape must impact on the development research agenda, there remain a number of other, interrelated challenges of enormous importance to our common future. Thus by the middle of the next century, it is estimated that there will

be about one-third less arable land available per capita, and probably an equivalent reduction in the availability of water for agricultural purposes. Food supply needs to be doubled with less of both these key natural resources available. At the moment, much of the technology portfolio is either unavailable or unsuitable. Water is increasingly becoming a contentious issue both within and between countries in many different parts of the world.

In the field of health, HIV/AIDS has developed into a real pandemic, with dire effects in many developing countries, particularly in sub-Saharan Africa. Apart from its enormous morbidity and mortality effects, it puts a big burden on the health services and on the educational, economic and administrative systems. At the same time, preventable child mortality remains the main health problem in the poorest countries.

It is increasingly argued that at the core of the global divide, is the vast inequality in innovation and diffusion of technology, and that we have barely scratched the surface of this central problem. There is a knowledge explosion, it is changing institutions, societies and the global economy, and it is contributing to an increasing (and increasingly dangerous) knowledge divide. In this perspective, only those societies that become “knowledge societies” are seen as having prospects for future success. This has profound implications for the organisation of human activities and will introduce radical modifications in the relations between and within societies. According to many observers, it requires a complete change in international strategy, because the divide in technology and knowledge is now seen as the most serious constraint to international development.

While there is scope for developing countries to become actively involved in many aspects of scientific research, a distinguishing feature of the emerging international order is that scientific and technological capabilities are distributed more unevenly than economic power. Thus the OECD countries account for roughly 85 per cent of total world expenditure in science and technology. India, China and the NICs of East Asia account for a further 10 per cent. This means that the rest of the world accounts for less than 5 per cent.

All this suggests that the science and technological capabilities of most developing countries are far too limited for those countries to deal adequately with the challenges of development and globalisation.

This brief sketch of some key developments and trends should not be read as an attempt to provide anything close to an exhaustive picture. It may be adequate, though, for drawing some important implications for Danish foreign policy and development co-operation as well as for the ways in which we assess the role of development research.

Denmark’s Development Policy

Over the last few years, Denmark’s development policy and activities have undergone a continuing adjustment to the above challenges. A new policy document – *Partnership 2000* – has recently been adopted, which confirms, i.a., that “development policy is an integral part of Denmark’s foreign policy with its overriding objectives of the promotion of common security, of democratic forms of government and human rights and of sustainable economic, social and environmental development” (p. 7). While the strategy

confirms poverty reduction as the main challenge and priority for Danish development assistance, there is e.g. a renewed emphasis on human rights and democratisation; a new concern with globalisation and its various dimensions (incl. global governance, trade and investment, the development of knowledge-based sectors, information and communication technologies); and statements to the effect that Denmark will intensify its efforts to prevent and manage armed conflicts in the developing countries. It is also clearly stated that Denmark will continue to bring its influence to bear on the changes that take place in the global landscape, particularly through its co-operation with international organisations.

The emphasis on “partnership” is based on the recognition that Denmark cannot create development for the poor of the world on its own, but that this must be generated in concert with the governments of partner countries, their populations and, not least, the poor themselves. Binding partnership will require an in-depth dialogue on development co-operation to ensure a shared understanding of goals and means. In particular, Denmark will like to see that the recipient country (i.e. the partner) gives high priority to poverty reduction, sound economic policies, good governance, anti-corruption measures, respect for human rights and democratisation, promotion of gender equality and safeguarding the environment.

Regarding research, the new Danida strategy argues that there is a need to rethink the role of research in development assistance. This applies not only to research as a field of development assistance, but also to “how research and research-based knowledge can be integrated into dynamic improvements of Denmark’s development co-operation” (p. 103). Closer links between research and development policy will, therefore, be forged.

Implications for Research and the Assessment of Research

Developments as outlined above also challenge the Danish and international research community in a number of ways that are relevant for this study. We wish to make five points which we believe are particularly important:

- First, recent developments suggest that *it is necessary to take a broad view of the concept of development research and what may justifiably be seen to belong to it*. Problems connected to development are no longer confined to the “South”. Many countries in the former East Bloc (particularly on the Balkans and in several former Soviet republics) suffer from great problems; migration and other factors have created “South problems” in parts of our own world; and a number of formidable problems (violent conflicts, environmental issues, migration, organised crime, drugs, terrorism, epidemics, to mention some) have become global issues that must be managed and solved on an international level and with developing countries as crucial partners. Furthermore, themes and topics have emerged that have either not been regarded as relevant (“religion and politics”, multiculturalism and others) or may so far have received insufficient attention (such as drug trafficking, conflict management or human security). Generating knowledge that may be important for development processes, therefore, requires the inputs and efforts of many disciplines and on a potentially wide range of topics.
- Second, *the legitimacy and importance of development-related research – and the educational activities that accompany such research – do not simply derive from their role*

in development assistance. Clearly, international developments suggest the growing interrelatedness of development issues and their increasingly global nature. For example, this was shown in the Asian financial crisis of 1997-98, when rapid capital flows across the world increased pressure on decision makers to understand immediate causes of the crisis as well as their policy, management and institutional roots. In brief, it is very difficult to draw clear boundaries between development research and training as required to solve development problems in the South, on the one hand, and, on the other hand, the many different kinds of research that are needed to confront a host of global and other issues that involve and affect countries in both the North and the South, including Denmark. There is another obvious point. The demand for knowledge of non-European cultures and societies has increased considerably in Denmark over the last decades. This is of course not limited to the country's co-operation with developing countries, but includes areas such as the social sector (incl. immigration), the media, the educational system, the foreign service more generally, and a private sector increasingly involved in commercial activities on other continents. While this review is mostly limited to appraising the role of Danish development research in relation to needs within development co-operation and foreign policy, it is important to acknowledge (a) that the Danish research community must serve other interests as well, and (b) that support for education is the necessary companion to investment in knowledge-building. This also has a bearing on how we look on research. Research provides the necessary basis for the teaching that takes place related to development issues, particularly at many Danish universities. These are responsible for supplying the resource base used both by Danida and by other organisations. For such reasons, it is important to maintain a strong independent development research effort at the universities. That other interests are served well, is, after all, also in the interest of Danida, which depends for its continued work on a high level of public sympathy and understanding among the Danish population.

- Third, the brief account of recent developments clearly indicates that they are not always easily predictable, and that *there is a need for preparedness in terms of building and maintaining a rather broad Danish research capacity.* Examples abound, also in the area of development assistance, where new regional or country expertise is called for at rather short notice (the Balkans, East Timor, Indonesia, etc.). There are, however, limits set by the capacity of a relatively small Danish research community to respond to continuously new challenges. Furthermore, whether or not Danida should be responsible for such preparedness is a different matter that we will return to in Chapter 5.
- Fourth, the rapid changes that are taking place in the world mean that *those engaged in development research should not only devote more time and effort to the understanding of issues across national boundaries, but also across different scientific disciplines.* In addition to the examples already used above, the challenges to agricultural research may provide another good example. There is a growing sense that strategic research and high quality science in this area are incompatible with the complex demands of the development agenda. Too many developing country farmers face conditions of difficulty and stress for which both tradition and science have few real answers so far. Technically sound solutions turn out to be financially and managerially unsound. Too much research is conducted on single problems and too little effort is made to tie the results of research into the complex environment in which the farmer has to operate. Strategies to deal with this problem include widening the use of on-farm

adaptive research methods and intensifying work with partners (both NGOs and national extension services) through whom research results may be provided to farmers. But for this to happen in a productive manner there is not only a need for hearing the voice of the poor as part of the research agenda setting and review – an issue which is often neglected or only paid lip service to by scholars involved in development research – but also a need for multi- and interdisciplinary research efforts. Thus while researchers must demonstrate disciplinary depth and methodological rigour, there is also need to take a more comprehensive view of development than normally comes from more narrow, disciplinary viewpoints.

- Fifth, if only “knowledge societies” are seen as having prospects for future success, *there would seem to be a larger role for research to play as an important aid intervention area in its own right*. The piecemeal approach whereby different donors have targeted different aspects of science and technology in the developing world has often led to a total system which is not connected and in which available skills are also fragmented and out of balance. In several African countries, the situation is particularly critical. This is in marked contrast to the integrated and balanced research and innovation systems which have evolved in western countries. There are diverse opinions and substantial debate on what the appropriate role is for donor organisations in supporting science and technology for development. They include differences regarding the emphasis on research vs. innovation; science vs. technology; building capacity vs. solving problems; and public vs. private involvement in research. However, there is wide agreement that a more systematic and integrated approach is required, and that economic development must be founded on well-functioning “national innovation systems”, in which not only the individual institutions and actors, but also the links between them, perform well.

A Note on Research and Policy Making

During the review process, it was found that a fairly large part of the Danish development research community is preoccupied with the definition of “research” or “*forskning*” (in Danish). This is related to concerns about how “relevance” and “utility” should be perceived, and whether or not a definition of “research” should include and range from research-like consultancies through commissioned research via applied research to more basic and theoretical work. Such concerns would seem to warrant a few comments on research and policy making before we move on to the next chapter.

Much applied problem solving would be impossible without the longer-term investment in research focused on underlying dynamics and causes, rather than just the specific problems at hand. It follows that development research should not be judged exclusively in terms of its direct, or instant, contribution to development; that is, solely according to whether it provides managerial “tools” or not. If it does not, the message is often that such research is useless. Such a purely instrumental view of research is unfruitful and indeed a recipe for stagnation. Research may be useful beyond immediate relevance and applicability. It can help challenge conventional wisdom and established notions, identify new problems not thought of by policy makers, provide new answers or offer explanations which are important for understanding even when they cannot easily be translated into measures. Sometimes alternative explanations are provided – and they may be useful even when they are contradictory, as they highlight real uncertainty. Therefore, an important part of the “tools” that researchers give to decision-makers will

be to expose the difficulties, the contradictions, the conflicts of interest in a situation, so that false hopes of easy solutions should not mislead.

Much of the research required by Danida will be of a broad, policy-oriented and forward-looking type which may not always provide easy or straightforward answers to policy makers, yet contribute to improving the basis for their decisions. This is also recognised in Danida. However, Danida also needs instrumental, often short-term research designed to address immediate problems. Such research may include baseline studies, monitoring and evaluation, but also research of a more technical nature, e.g. what seeds are best adapted to a particular environment, what diagnostic test is most appropriate for particular diseases, or what materials are best suited for road construction. Much of the important research in the field of development is of this kind. It goes beyond what is often referred to as “inquiry” or “examination” (in Danish: *“udredninger”*) and can be of direct practical use for policy makers, even when it takes some time to arrive at the results. Moreover, practical problems often provide science with opportunities for breaking new ground.

It follows that the political community, in this case primarily Danida, must “work with two horses” (Gudmund Hernes). One is harnessed for sharpening and solving problems posed by policy makers to inform their decisions. Such research may be of short-term (including purely instrumental) or longer-term (including “strategic” research) and may also help redefining the problems by challenging preconceptions. The other horse is let loose to roam for itself in the expectation that it will bring forth new discoveries, provide new answers and identify problems not yet thought of by policy makers.

2. Context and Structures of Danish Development Research

The Danish Research Landscape

Danish development research is part of the Danish research landscape. Its situation can be properly understood only with reference to Danish public policy for research, the system put in place to finance the national research effort and the various bodies that are involved with management, co-ordination and actual implementation of research in Denmark.

An overview of the Danish research system shows that research policy and research management in Denmark is set in a complex structure, involving many elements. OECD carried out a review of Danish research in 1994 and pointed out that the complicated, but also fragmented and, in part, incoherent structure of the Danish research system that it found at the time in fact prevented the national authorities from making the necessary choices in terms of direction and priorities for research. OECD pointed out that it is absolutely necessary for a small country like Denmark to prioritise wisely and make clear choices about objectives and direction to achieve the best possible results from the comparatively limited funds allocated for the national research effort. It was recommended that Denmark should restructure and streamline the national research system to facilitate such governance issues and clarify priorities with regard to research areas and themes. A first requirement involved placing the political and administrative responsibility for the national research effort in the Ministry of Research⁴. Further recommendations pointed to the need to prepare a national research strategy and to increase public funding to research.

There have been a number of significant developments in Danish research policy since the early 1990s, in terms of increased funding as well as structural reform. But the Danish research system is still evolving and the attempt that will be made here to outline some of the structures and issues run the risk of becoming outdated very quickly⁵.

Development research in Denmark is marginal to the main national research effort. Judging by the available statistics (set out below), less than 3 per cent of the annual public appropriations for research are spent on development research. Equally importantly, the political and administrative responsibility for research relating to development issues and development co-operation is placed outside the main structures for research management in Denmark, viz. the Ministry of Research and the research councils. The impression is that development research is largely funded by Danida and is managed by structures put in place by Danida.

4) *The official designation of this ministry is now (after the changes in December 2000) the Ministry of Information Technology and Research, but for the sake of convenience it will be referred to as the Ministry of Research in this report.*

5) *In addition to the present Commission appointed by the Minister for Development Co-operation to review Danish development research, the Ministry of Research and Information Technology in July 2000 appointed a Commission to review the overall regulatory framework and the structure of the Danish research system, with a report due in August 2001.*

There are a number of difficulties involved in forming a view on the position of development research in the Danish research landscape. A systematic survey on the extent, distribution, volume and funding of Danish development research has not been undertaken. The overview presented later in this report is neither detailed enough nor precise enough to be entirely satisfactory. Development research is not a category in the available research statistics or other forms of documentation, such as in the national DANDOK research database. It is given little attention in research policy documentation and in the policy debate, whether in central policy statements like the National Research Strategy or in relation to the annual 'research packages' approved by the Folketing. Initiatives relating to development research are absent in these packages. A central issue in Danish research policy concerns public governance and insight with respect to research funded from the public purse. Universities are in particular expected to account for their activities and publicise the kinds of research they undertake. Development research is not a prominent area in the presentations, e.g. in university annual reports, with the significant exception of the North/South programme at the University of Copenhagen. Mention should also be made of the Royal Veterinary and Agricultural University, which has organised a number of activities relating to development research in its field.

Nonetheless, there is little doubt that development research in Denmark depends heavily on the universities. The universities are central to the national research establishment by making the required long-term, fundamental investments in generating, maintaining and renewing the research capacity, also within development research, through the distribution of staff positions and other basic facilities. Although the exact amount of staff time devoted to development research at the universities every year is unknown, development research depends heavily on such resources. These resources are often hidden inside the allocations made to research (as opposed to teaching and supervision) by university researchers and university management from the core grants received by the universities. All academic staff at Danish universities are (in principle) entitled to spend 40 per cent of their time on research of their own choice. The distribution of this resource on particular fields of research is partly a private choice, hence it is not always necessarily a theme in research policy. But staff time alone is often insufficient to actually carry out research. Important themes in research policy therefore concern the allocation of other necessary resources, for field-work, expensive equipment, specialised laboratories, support staff, for academic exchange at conferences and for publication and dissemination of research results, and so on. In many fields, recruitment to research through Ph.D. fellowships is equally important to sustain a major research programme. In terms of these necessary external resources, which come from research councils, private and public research foundations, research contracts, commissioned work etc., it seems safe to say that Danish development research depends heavily on Danida. It is not possible to be precise about the relative contributions to the overall effort. This report proposes, however, that because Danida has taken on a major responsibility for providing these external resources for development research in Denmark, this field of research enjoys marginal attention in the normal structures available to prioritise, guide, co-ordinate and manage Danish research.

Whether this still should be so is a matter that the present Commission must address. Clearly, knowledge about the developing world and about Denmark's relations with it is as legitimate a field as other fields of research. This knowledge is important in many contexts other than development assistance work. It may be argued that it is an accepted public responsibility that this knowledge should be generated, maintained and be made available in a society with an increasing number of ties to the developing worlds and

where easy access to knowledge and information has become crucially important. In these terms, development-related research is no different than other types of research that the research system is set up to produce. But so far, development research has not enjoyed sufficient attention from the research system.

Many of the issues raised by the current review of Danish development research, however, are nonetheless reflections of debates that have been central to Danish research policy in the last decade.

Some Issues in Danish Research Policy

The lynch-pin in the Danish research system is the Ministry of Research and Information Technology.⁶ It was established in 1992 with a mandate to co-ordinate the national Danish research effort in order to meet the challenges of creating a society that makes full use of advanced technology without compromising human, social and cultural values of Danish society. Policy statements place a lot of importance in research as the means through which Denmark will maintain competitiveness in a future that will be dominated by advanced technology and an industry based on knowledge.

OECD reviewed Danish research in 1994 and reported that it was difficult to distinguish the overall priorities and objectives of the national research effort. This was due to a research system that was described as highly complex and fragmented, to the extent that the direction of the research effort in terms of setting goals and overall objectives largely remained outside the political domain. In response to this report, the Ministry of Research prepared a White paper on research in 1995 in which it invited public debate on the two central issues of *quality* and *relevance* of research. In turn, this debate led to the formulation of a National Research Strategy.

The National Research Strategy

The National Research Strategy, issued in 1997, argues for the general societal importance of a continued high level of investment in research and advanced training. The National Research Strategy accepts that research quality is best secured through autonomous academic institutions that themselves are responsible for quality assurance of research and research-based training. The strategy also underlines, however, the responsibility of the academic community to communicate the objectives and priorities of the research effort to the public and to the political system. Large parts of the national research effort are funded from the public purse and the public clearly must have some kind of assurance that the goals and direction of the research effort are worthwhile. The overarching aim of the National Research Strategy is thus expressed as a formalisation of the dialogue between the academic community and society in a dynamic process where the autonomy of academic institutions is respected and protected. This should not be understood as an invitation to unconditional expression of academic self-interest but rather as a reflection of shared responsibility for a common future.

The tension between the accepted principle of academic autonomy and the need for the political system to be involved in target-setting has continued to drive Danish research policy. The two major issues in the current debate relate directly to this tension, viz. the

⁶) Since December 2000, the Ministry of Information Technology and Research.

preponderance of 'programme research' over 'free research' in Danish research funding and, more recently, the introduction of performance contracts for the universities.

The National Research Strategy is clear in stating that it is not intended as a national master plan for research, but rather as a platform for bringing together the research interests of the academic community and the research needs of society in a situation where highly trained manpower, extensive research capacity and highly developed competence are becoming increasingly crucial tools for Denmark to meet future challenges. Specific strategies within a number of fields have been elaborated on the basis of the national strategy (e.g. for health research, biotechnology, energy, fisheries, the environment, information technology, space research etc.) But the National Research Strategy does not have a lot to say about development research, which is discussed in half a page.

Development Research in the National Research Strategy

The National Research Strategy points out that developing countries suffer from a number of pressing problems where the application of research is urgently needed. The role of Danish development research is set out as (*inter alia*):

- Strengthening the research environment in developing countries
- Production of development-relevant research
- Development and adaptation of available research
- Strengthening of Danish insight and understanding of central issues and problems in developing countries.

Furthermore, it is stated that 'culture of research' is of central importance to development in any country, and that Denmark aims to impart the values of this culture in its co-operation with developing countries. Although the 'culture of research' may be seen as a cross-cutting issue, it is also necessary to pay attention to the research sector, which in most developing countries is typically under-funded, fragmented and fragile. It is necessary to strengthen the capacity of developing countries within the field of research, partly through co-operation between research institutions in Denmark and in the developing countries.

International co-operation is given high priority throughout the Research Strategy, but this clearly refers to co-operation within the European Union and similarly northern institutions, primarily with the purpose of strengthening the Danish research base.

In summing up the discussion of development research in the National Research Strategy, it is clear that research on the situation of the developing countries or research of direct relevance to the development process in these countries is primarily seen as an aspect of Danish development co-operation. It is not discussed in terms of the Danish national research policy.

Political Agreement on Principles for Research Policy

A reduction in public funding of research foreseen in the forward budget was the theme of the annual report of the Danish Council for Research Policy in 1999.⁷ The Council

⁷) *Danmarks forskningsråds årsrapport '99: Kortlægning af de offentlige forskningsmidler, December 1999.*

recommended that the average growth rates (between 3 and 4 per cent) in public research funding achieved through the 1990's should be maintained also for the coming 3-5 years, but also recommended a revision of the structures for research management, including an overhaul of the existing research councils. The recommendations furthermore expressed a concern that more generous funding should be allocated for research purposes in core grants to the universities, but that this shift should be accompanied by more vigorous instruments for governance. This report is partly the background to the political agreement on principles for research policy in Denmark reached in May 2000 by the Ministry of Research and all parties (except the Red-Green Alliance) in the Folketing. Although the agreement specifically states that annual research budgets will be subject to normal prioritisation and negotiations in the Folketing preparation of the annual appropriations bill (or Finance Act, as it is more properly known), the principles expressed in the agreement underline the need for:

- A strong national research base
- Continuity in research priorities
- Stable financial frameworks.

The agreement specifically commits the parties to seek to:

- Counteract the detailed regulation in the financing of research and
- To reduce the number of different funding pools and programmes (popularly known as 'Cigar Boxes') in the public funding of research
- Maintain the existing ratio between research and teaching in the universities.

These goals should be achieved through greater attention to:

- **Recruitment**, through funding for new doctoral programmes, research schools and entry positions for young researchers
- **Renewal**, with renewed emphasis on basic research through proposed creation of large, interdisciplinary research groups working on priority research tasks agreed between the research institutions and the Ministry. There will also be additional emphasis on core funding for the universities
- **Continuity**, with the aim of securing stable financial conditions for the universities and research councils.

On the basis of the political agreement reached, the Ministry of Research has (in July 2000) appointed a Commission to assess the relationship of the legal framework for the Danish research system and the objectives listed above, with a view to propose structural reforms that will support these objectives.

University Performance Contracts

The Folketing agreement is clearly concerned about the conditions and developments at the universities. They are after all the main research institutions in Denmark and have particular responsibilities in maintaining a broad perspective in their research outlook. They are also the main source of trained manpower. All 10 of Denmark's universities have over the past year entered into performance contracts with the Ministry of

University of Copenhagen Performance Contract

The performance contract of the University of Copenhagen may be used as an example of what these performance contracts contain. The contract is a long document (50 pages). It sets out a number of goals and specifies what the University intends to do under the different headings.

It is pointed out very clearly that the purpose of the contract is not centralised management, neither within the university, nor in its relations with the Ministry of Research. The performance contract is rather seen as a catalyst in the process of arriving at university development goals set out in the contract.

In the University of Copenhagen contract, goals for the dual responsibility of research and education are given primary priority. The fundamental importance of research is emphasised, in particular the need for *'undirected research resources'*, to maintain research environments of internationally high standing, but also to maintain *'capabilities within academic fields that are not currently the focus of specific attention'*. The University will attempt to protect the ratio of undirected research from encroachment from increased teaching loads on the one hand and unwarranted external influence on the other. But the University must also ensure that the free choice of research projects by staff members must be exercised *'with responsibility for the entire research field of the department'*. Departments and faculties must therefore draw up research plans in relation to study programmes as well as with the aim of maintaining a broad research profile of high quality. The University will make an additional effort to attract external funding for research.

Particular attention is given to benchmarking and procedures for quality assurance of research, and high priority is given to research training. One particular problem that the University raises is the skewed age composition of senior staff. Active measures are required with respect to recruitment and replacement to avoid a potential crisis in teaching and research supervision.

The performance contract devotes a number of paragraphs to the importance of high-quality and research-based teaching and indicates steps to safe-guard this. There are also indications of how the University will meet new challenges to its teaching programmes, such as the integration of new groups of students, in particular students with a non-university post-secondary training background.

Dissemination is recognised as a major obligation of the University and the University undertakes to examine and improve policies and practises relating to this.

The contract sets out the priority areas for the development and consolidation of particular fields of research and training. For the University of Copenhagen these are specified as: biotechnology, North/South relations, environment, public health, contributions to the Øresund University (the academic co-operation programme based on the Øresund Region, defined after the construction of the bridge between Sweden and Denmark) and increased attention to patenting and other ways of exploiting University research output.

In the context of development research, the two most relevant goal-setting paragraphs concern the North/South initiative and public health. In both cases the University will build on earlier initiatives, such as within studies on African affairs and Islam, as well as the establishment of the large interdisciplinary Department of Public Health. The last sections of the contract contain statements on

- internationalisation, in terms of facilitating student exchange programmes
- infrastructure and physical facilities
- human resources.

The very final part of the performance contract discusses the financial and budgetary preconditions necessary for the implementation of the contract.

(Based on 'University Performance Contracts – The Danish Model', Ministry of Research and Information Technology, Copenhagen, June 2000)

Research⁸, which set out benchmarks and goals for the development of the dual responsibilities of universities in research and teaching. The performance contracts oblige the universities to articulate goals, objectives and strategies over a four-year planning period, in return for greater stability in resource flows, increased levels of core funding and, in principle, greater autonomy in management of resources.

The Ministry of Research is responsible for the universities and is the source of the core funding received by the universities to cover major parts of their basic costs.⁹ The universities additionally receive funding from the Ministry of Education for the training aspect of their mandate, on the basis of the volume of students trained (known in Denmark as the 'taximeter principle'). It has been claimed that this structure has reduced the time and resources available for research in the universities and the balance between teaching and research is a constant management issue, as well as an issue in research policy discourse. This is so not only in terms of the time each teacher may allocate to research and teaching, but also in terms of investments and management of resources across large and heterogeneous university institutions. The introduction of performance contracts invites the universities to make explicit performance goals on both accounts and show how resources will be used to achieve goals with regard to both training and research. The performance contracts, which imply greater transparency and public insight into the management of the universities, should in turn allow the reduction of the extensive ear-marking of research funds which has been a feature of the Danish research system.

The introduction of performance contracts is a contentious issue within the Danish universities. The large university teachers' unions see them as a threat to academic freedom and as instruments for increased interference, detailed regulation and control of all aspects of the universities, including research agendas. University management, however, seems to accept the contracts as means of clarifying university goals and priorities and in communicating these to the politicians and the public. As far as the Ministry of Research is concerned, the performance contracts are seen as a means of emphasising goal achievement and results rather than a hands-on control of budgets and resource flows in the management of the university sector. It is true, however, that the performance contracts do not commit the Ministry to specific financial contributions or a fixed arrangement for compensating universities for particular obligations set out in the contract. Still, it is claimed that the performance contracts are a means to make explicit the importance of research and that they place the onus on the political system to provide the resources required to reach agreed upon goals.

Resources

Public funding of research in Denmark has been maintained at a comparatively high level over the last decade. Allocations have grown throughout the 1990s by an average of 3,6 per cent per annum, with a budget figure for 2000 of DKK 10.868 million.¹⁰

8) See: University Performance Contracts – The Danish Model, *Ministry of Research and Information Technology, Copenhagen June, 2000.*

9) *This responsibility for the universities was transferred back to the Ministry of Education in December 2000, in connection with a reshuffle of the Cabinet.*

10) *Figures from Analyseinstituttet for Forskning: Offentligt forskningsbudget 2000.*

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

In a comparison of public funding for non-military research, Denmark is rated among the top three European nations.

Public expenditure on non-military research, 1992-1998 (% of GNP)

	1992	1993	1994	1995	1996	1997	1998
EUR 15	0,74	0,73	0,69	0,70	0,68	0,66	0,65
Denmark	0,71	0,67	0,70	0,75	0,76	0,74	0,76
Sweden	0,97	0,99	0,97	0,93	0,92	-	0,78
Netherlands	0,82	0,80	0,76	0,76	0,77	0,80	0,77
Norway	0,90	0,87	0,82	0,77	0,74	0,71	0,74

Source: *Analyseinstituttet for forskning*.

Gross domestic expenditure on research in Denmark (i.e. including private-sector spending) was DKK 24.158 million in 1999, equivalent to 2 per cent of the GDP.¹¹ Research expenditures have increased consistently over the past decade, from 1,7 per cent of GDP in 1991.

One significant development is the relative increase of private-sector expenditure on research over the past decade, with private research funding increasing from approximately 50 per cent of gross domestic expenditures on this item in the 1980's to approximately 60 per cent in 1999.

Since the establishment of the Ministry of Research and Information Technology in 1992, public funding of research in Denmark has increased significantly:

Public research funding 1992-2000 (Mill DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
By source of funds:									
Parliamentary									
appropriations	6842,5	6963,2	7026,1	7699,8	8417,5	8803,3	9054,4	9044,5	8860,5
International									
contributions	634,2	584,7	610,1	622,6	642,2	694,4	670,2	637,0	665,0
Grants from local									
authorities	499,4	521,5	541,6	727,6	745,5	760,4	784,3	825,3	812,8
National Research									
Foundation	0,0	22,7	165,3	177,1	196,5	218,9	262,1	250,1	264,5
Growth Fund									
(VækstFonden)	14,2	288,8	215,1	272,4	316,4	227,5	201,4	399,6	265,5
Total	7990,3	8381,1	8558,2	9499,4	10318,1	10704,5	10972,5	11156,5	10868,3

Source: *Analyseinstituttet for forskning*

¹¹) Figures from *OECD Main Science and Technology Indicators, 2000 – 1*.

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

Since the Ministry was created there has thus been a growth in public research funding that has taken Denmark from a ranking slightly below the European average spending on non-military research (as a percentage of GNP) to well above this average. The average annual growth in public expenditure on research has been between 3 and 4 per cent in this period. The forward budget, however, indicates a significant reduction in public research funding between 1999 and 2002.

Distribution of parliamentary appropriations for research, 1992-2000 (Mill. DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sectoral research									
institutions	1188,3	1222,2	1000,2	960,0	1133,2	1018,0	1053,6	1073,8	1049,8
Universities etc.	2504,6	2705,4	2644,3	2785,3	3110,2	3528,3	3622,2	3656,3	3547,5
Other research									
institutes	362,0	434,4	391,0	378,0	399,2	451,6	475,3	421,0	415,3
Research councils	920,4	779,2	799,1	997,1	1196,1	1108,8	1029,9	1057,4	861,9
Other major grants	1094,4	993,6	1327,4	1624,1	1836,0	1526,5	1826,8	1692,4	1854,3
International activities	432,3	431,4	460,4	473,3	459,9	698,6	640,3	610,2	676,5
Other	385,6	397,2	403,6	482,0	282,8	471,6	406,4	533,4	455,2
Total	6842,5	6963,2	7026,1	7699,8	8417,5	8803,3	9054,4	9044,5	8860,5

Source: *Analyseinstituttet for forskning*

The Ministry of Research and Information Technology is not the only source of research funds in Denmark. A number of line ministries hold research appropriations that are managed partly directly by the ministry in question, e.g. as budget contributions to sectoral research institutes owned by the ministry, and partly through the creation of research programmes for particular tasks and purposes. These latter, earmarked contributions have been a favoured means of making research funding visible (as well as maintaining a measure of political control) in the so called 'research packages' approved annually by the Folketing.

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

Research appropriations, 1992-2000 (Mill. DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Ministry of Research and IT	4144,8	4310,7	4062,7	4383,4	5000,5	5405,8	5411,3	5419,9	5184,9
Ministry of Agriculture	583,9	605,6	716,0	713,2	751,9	863,9	868,1	891,6	918,1
Ministry of Trade & Industry	497,3	353,1	442,1	521,3	546,9	452,2	517,2	509,4	439,3
Ministry of Environment & Energy	404,8	388,0	350,2	429,5	452,9	468,8	470,8	475,0	420,7
Ministry of Culture	339,5	411,5	410,2	391,9	407,0	423,7	462,2	442,7	446,5
Ministry of Education	176,4	146,2	158,9	239,5	273,8	334,7	336,7	314,4	342,2
Ministry of Labour	51,7	54,0	151,2	237,8	366,2	184,8	273,4	275,0	308,0
Ministry of Foreign Affairs	116,9	143,6	172,9	203,5	202,6	270,5	248,3	235,7	283,6
Ministry of Health	224,1	228,5	228,3	238,9	86,8	87,9	149,9	138,0	124,9
Ministry of Urban A. & Housing	83,0	83,2	85,0	84,8	93,3	89,1	83,4	103,0	135,5
Ministry of Communications	122,6	127,8	126,6	126,5	104,9	91,4	86,0	88,7	95,6
Ministry of Social Affairs	28,1	39,9	47,2	52,8	52,1	57,1	72,4	77,9	92,6
Ministry of Defence	41,7	42,7	46,0	47,9	47,9	50,0	50,7	51,1	50,4
Ministry of Economic Affairs.	27,7	28,4	28,9	28,9	30,8	23,3	24,1	22,2	18,2
Total	6842,5	6963,2	7026,1	7699,8	8417,5	8803,3	9054,4	9044,5	8860,5

Source: *Analyseinstituttet for forskning*

The Danish research system also receives funding from international sources, the most significant of which are the European Union and the Nordic Council of Ministers:

Funds from international research co-operation, 1992-2000 (Mill DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
EU Framework Programme	566,6	527,0	555,0	563,7	580,3	640,3	624,3	593,0	603,5
Nordic Council of Ministers	67,6	57,8	55,1	58,9	61,9	54,1	45,9	44,0	61,5
Total	634,2	584,8	610,1	622,6	642,2	694,4	670,2	637,0	665,0

Source: *Analyseinstituttet for forskning*

Danish contributions to the EU framework programme in 2000 make up approximately 2 per cent of the EU budget, but Danish institutions are estimated to receive approximately 3 per cent of the budget in return.

The Proliferation of ‘Cigar Boxes’

The research funds appropriated by particular ministries may be managed by the ministry itself, but many are managed by one or more of the research councils. Research funds are usually tied to specific research programmes, popularly known as ‘Cigar Boxes’. There are six research councils in Denmark, placed under a common structure, viz.:

- The Board of Danish Research Councils (Forum), composed of

The Danish Research Councils for:

- Agricultural and Veterinary Sciences
- Natural Sciences
- Social Sciences
- Medical and Health Sciences
- Technological Sciences
- Humanities and Fine Arts.

In 1998 there were 52 distinct research programmes registered in the six research councils.¹² 27 of these were inter-sectoral research programmes involving two or more research councils, managed by a total of 22 programme committees. The proliferation of the number of ‘Cigar Boxes’ in the various ministries and in the research councils has been a source of much frustration in the Danish research system. While this format for funding research may have been politically expedient, it is now generally accepted that the proliferation of research programmes has been detrimental to research. It is claimed that too many research programmes are poorly formulated, inadequately funded and given time-frames that relate more to political than scientific requirements. Another problem is that several of the research programmes defined in this manner have become so specific and restricted in their mandates and requirements that only a small number of applicants actually meet them. This has posed a number of managerial problems not least in terms of inviting applications, procedures for fair and equitable review and for quality assurance. It seems, however, that the line ministries have been reluctant to give up control of their research funds, even if management functions are delegated to the research councils.

Although it is hard to gain an overview of the number of ‘Cigar Boxes’ available to the various ministries, the allocation that each ministry reserves for programme funding may be a good indication of each ministry’s level of ambition with regard to active research management. It should be remembered that each ministry with a research appropriation has appointed an Advisory Research Board. These Boards sometimes hold authority to grant research funds directly. In other cases, however, the Boards act in an advisory capacity only and programme funds are managed by a research council, on behalf of the ministry in question.

¹²⁾ *Figures from* Årsberetning fra Forskningsforum og de seks statslige forskningsråd, 1999.

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

Distribution of public research appropriations (2000) on core and programme funding (in %)

	Core	Programme
Ministry of Research	70,3	29,7
Ministry of Agriculture	30,3	69,7
Ministry of Trade & Industry	45,9	54,1
Ministry of Environment & Energy	38,4	65,2
Ministry of Culture	85,7	14,3
Ministry of Education		100,0
Ministry of Labour	24,8	75,2
Ministry of Foreign Affairs	57,5	42,5
Ministry of Health	97,5	2,5
Ministry of Urban Affairs & Housing	34,1	65,9
Ministry of Communications	43,0	57,0
Ministry of Social Affairs	44,6	55,4
Ministry of Defence	73,4	26,6
Ministry of Economic Affairs	100,0	
Total	58,1	41,9

Source: *Analyseinstituttet for forskning.*

Seen from the point of view of the institutions actually carrying out the research, the following picture emerges:

Structure of public research appropriations (2000), by sector (in % of total allocation)

	Core funds	Programme funds
Sectoral research institutes	87,4	12,6
Universities	76,1	23,6
Other research institutes	83,9	16,1
Research councils		100,0
Other major grants schemes	14,6	85,4
International activities	67,4	32,6
Other	26,8	73,2

Source: *Analyseinstituttet for forskning*

As mentioned above, the proliferation of earmarked programme funds ('Cigar Boxes') has been a major irritant in the relationship between the research community and government in Denmark. One of the main expectations to the recent political agreement on research policy in the Folketing is the restructuring of the yearly 'research parcels' into larger, more long-term and more coherent research initiatives.

Units

The public responsibility for the Danish research system is currently based on 4 central acts of the Folketing:

- The University Act
- The Act on National Government Research Institutions
- The Act on the Research Advisory system, which includes
 - Danish Council for Research Policy
 - The six Research Councils
 - The Research Advisory Boards
- The Act on the Danish National Research Foundation.

Some of these acts contain clauses and stipulations concerning dates for review. Nonetheless, the Commission appointed by the Ministry of Research will examine the overall legislative base for the Danish research system and propose reforms with regard to research training, recruitment and employment opportunities, the structures for funding, co-ordination and management of research, conditions for international participation as well as the structure of government funding of research. A report is due in August 2001, and the implication is of course that the Danish research system may undergo important changes in the years to come.

The main units in the present system, however, are the following:

Universities

There are 10 universities in Denmark. They receive funding from the Ministry of Education for the training aspects of their activities on the basis of a 'taximeter' principle and core funding from the Ministry of Research.¹³ Core funding for research basically covers staff and maintenance costs, including some basic running costs. Additional funds for research, including investments in equipment, running costs and expenses for operations must be sought elsewhere. Some universities hold independent assets that allow them some measure of autonomy with regard to research funding, but most commonly research is funded from the six research councils or from the Danish National Research Foundation. Some research costs may be covered from private foundations, or from international sources.

The universities receive approximately 40 per cent of the public research appropriations in Denmark, the bulk of which is provided by the Ministry of Research. It is commonly asserted, particularly by university staff, that the universities have to use parts of the core grants received for research purposes to cover the training aspect of their dual mandate, since the 'taximeter' for education costs does not capture the full costs of investments in staff and facilities. This is a particularly difficult problem when student numbers vary significantly from one year to the next. The relative balance between resources allocated for teaching and for research is a constant issue in university management and one that was studied by the Council for Research Policy in 1999. The conclusions seem to be that obligations arising from training did in fact encroach quite significantly on the resources set aside for research between 1985 and 1995. Since 1995

¹³) *In connection with the cabinet reshuffle in December 2000, the responsibility for the universities was transferred to the Ministry of Education.*

the situation has been stabilised, but over the period as a whole, resource distribution has been biased in favour of teaching.

The universities obviously maintain research activities within a broad selection of academic fields, on the basis of the research interests of university staff members. The universities rarely hold discretionary funds to support research beyond the contributions made to staff costs and basic infrastructure, but in those cases where staff time is the major component, the contribution may nonetheless be significant. Particular mention must also be made of the particular contribution of the universities in terms of maintaining a broad span of research interests. These contributions may not be seen as particularly relevant in any immediate sense, but are nonetheless important components of the national research preparedness.

Research Institutes

There are 29 government-owned sectoral research institutes in Denmark. These are either owned by or otherwise placed under the responsibility of various line ministries. A number of them receive budget support through the Ministry of Research. The sectoral research institutes usually have much more specific mandates than the universities, and are often seen as institutions for applied research. Although the sectoral research institutes are not exclusively tied into applied research, they usually enjoy a close relationship with their parent ministry and are expected to provide the research support required by the ministry in question for the exercise of its policy functions. Nonetheless, many of the sectoral research institutes are important, specialised research establishments in their own right.

In addition to the sector research institutes, some 18 libraries, archives and museums with some research activity attached to them are usually counted among the research institutes. The main activity at these institutions is not research, but staff may occasionally be involved in (externally funded) research projects.

Research Councils

The Danish Council for Research Policy

This advisory council was established in 1996 with a particular responsibility to advise the government on research strategy and research policy. It co-ordinates relations between public and private-sector research as well as between the many public bodies involved in research policy and research management.

The Danish Research Agency

The Danish Research Agency is an independent institution under the Ministry of Research. It provides the secretariat to, and is composed of:

- The Board of Danish Research Councils (Forum),
- The Danish Research Councils for
 - Agricultural and Veterinary Sciences
 - Natural Sciences
 - Social Sciences
 - Medical and Health Sciences
 - Technological Sciences
 - Humanities and Fine Arts
- The Danish Research Training Council,
- The Central Scientific Ethical Committee,
- The Danish Committee on Scientific Dishonesty
- A number of different programme committees.

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

In terms of research management, the most important of these units are the six research councils which provide research funding on the basis of research proposals from individuals, the universities and research institutes. As indicated above, almost all of the funding provided is tied to various programmes managed by the research councils. Some of the research programmes are funded from external sources, but also research funded from the budget allocations of the individual councils tends to be organised in research programmes. The main exceptions are for Ph.D. projects.

In terms of the overall public appropriations for research, the funding distributed through the research councils is comparatively modest:

Parliamentary appropriations for 'General Development of Scientific Research' (Mill. DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Natural sciences	905,9	960,6	907,5	954,6	1006,9	975,7	951,4	910,2	906,6
Technological sciences	762,2	667,0	697,5	632,6	730,8	711,4	614,9	632,6	606,3
Health sciences	647,6	665,8	655,5	695,6	588,0	632,8	710,5	665,6	595,5
Agric. & veterinary sciences	254,6	276,9	278,8	265,8	315,1	394,9	293,1	323,6	300,2
Social sciences	470,0	490,2	411,9	486,7	510,0	530,1	533,9	543,6	569,5
Humanities	556,5	612,0	538,3	564,4	644,0	650,8	729,1	784,5	703,8
Unclassified	495,9	570,3	600,0	843,3	1105,5	1344,5	1492,0	1430,6	1349,3
Total	4056,6	4242,8	4089,6	4443,1	4900,2	5240,1	5325,0	5290,7	5031,2
Total budget of the six councils	920,4	779,2	799,1	997,1	1196,1	1108,8	1029,0	1057,4	861,9

Source: *Analyseinstituttet for forskning.*

The budget available to the six research councils for purposes defined by the councils themselves has been distributed as follows:

Research council budgets (Mill. DKK, in current prices, including transfer from previous years)

	1997	1998	1999
Natural sciences	241,5	150,9	145,4
Technology	142,4	93,3	108,7
Health	188,9	170,5	186,5
Agriculture	82,2	60,6	56,0
Social science	81,7	64,1	68,0
Humanities	88,2	70,6	72,6

Source: *Research Agency Annual Reports, 1998, 1999*

It is important to note, however, that these figures do not take the many earmarked research programmes into account. Although there are a number of 'Cigar Boxes' managed directly by the line ministry holding the budget vote, it seems that these research initiatives increasingly are offered to the research councils in the annual 'research packages' in the Folketing. The programmes included in the 'research packages' are usually offered for a limited number of years, but some programmes have

become more or less permanent, with yearly allocations. A tabulation of the 'Cigar Boxes' managed by different units in the Danish Research Agency is presented in Annex 2.

Subsequent on the political agreement on research management reached by the Ministry of Research and the major parties in the Folketing in May 2000, the practice of the annual 'research packages' is due to be replaced by larger and more coherent research initiatives, with a particular emphasis on basic research. The details of this will be elaborated by the Commission appointed to review the research system.

Danish National Research Foundation

The Danish National Research Foundation was established in 1991 with a capital base of DKK 2 billion. Its purpose is to identify and support groups of scientists who are able to create innovative and creative research environments of the highest international quality. The Act that governs the Foundation stipulates that basic research is the primary area for its work.

Substantial, adjustable grants for up to 5 years allow centres of excellence to be created and depending on the outcome of regular international evaluation, support can be given for a total of 10 years. At present the Danish National Research Foundation is financing 25 centres of excellence with a total annual budget of about DKK 250 mill.

Approximately 200 Ph.D. students are funded by the Foundation and initiatives have been taken to improve the quality of training of young researchers. In 1997/98, two Ph.D. schools were set up:

- International Ph.D. School in Computer Science, (BRICS), University of Aarhus.
- The International Doctoral School for Bio-medical Science at Centre for Sensory-Motor Interaction, University of Aalborg.

In 2000, the Foundation issued a call for new proposals and 228 proposals were received. The Board decided to go forward with 26 of these, which in turn were elaborated into detailed research plans. These have been subjected to evaluation by highly qualified review panels (with foreign scientists). Based on the outcome of these evaluations, the Board will select new centres of excellence that may be funded with up to DKK 40 million over a five-year period.

Vækstfonden (Business Development Finance)

VækstFonden (Business Development Finance) is an organisation that specialises in providing finance to promising business development in enterprises with up to 250 employees. VækstFonden was set up in 1992 with a capital base of DKK 2 billion and lends some DKK 300 million annually to enterprises in Denmark.

In the Research & Development field, VækstFonden loans can be granted for projects to develop completely new or substantially improved products, manufacturing methods or services. In 2000 a total of DKK 265,5 million of the VækstFonden portfolio were classified as research & development finance.

GTS Institutes

A structure known as the Advanced Technology Group organises 12 Authorised Technological Service Institutes (GTS-institutes). This is a structure particular to Denmark, set up to achieve economies of scale in the provision of research and development services to

a commercial sector mostly made up of small and intermediate-size units. The GTS institutes are organised as independent foundations that sell technological advice to the Danish business community and to the public sector at commercial rates in Denmark and abroad. In 1999, the GTS-institutes had a turnover of DKK 2,1 billion, of which approx. 89 per cent consisted of income from clients.

The GTS institutes are reviewed and approved by the Ministry of Trade and Industry. This approval allows the institutes to apply for basic research funding for competence building activities within the institutes. Institutes need to keep up with developments within their respective fields in order to provide clients with the latest technological advances. The basic funding provided may not, however, be used as an operational subsidy to lower the cost of the commercial services offered. Funding for these competence building/research projects is allocated by the Council for Technological Services under the Ministry of Trade and Industry, which is also expected to formulate and up-date the national strategy for technological research. In 1999, basic funding for research at the GTS institutes amounted to DKK 231 million, or some 11 per cent of the annual turn-over.

Private Foundations

Private foundations and endowment funds are often a source of research funds, but many of them operate very discreetly or are of such a modest scale that they require some effort to identify. The larger of the private foundations are often set up to own/control share capital and stocks in business enterprises and spend parts of the gains to support research or other philanthropic causes. Two such sources of research funds are specifically known to have supported development research in Denmark. This report has not had the opportunity to look into the activities of other foundations, e.g. the Knud Højgaard Foundation which (for historical reasons) appoints one of the board members to the Danish Bilharziasis Laboratory, or COWI Foundation, which supports research proposed by COWI employees.

The proceeds of the **Carlsberg Foundation** that are set aside to provide support for research are distributed on three distinct activities:

- Budget support to Carlsberg Laboratories, a research laboratory specialising in chemistry and fermentation biology. The laboratory also receives research funding from public sources, on the basis of normal application procedures
- Budget support to the Fredriksberg Museum of Natural History
- Research support.

Under the latter heading, the Carlsberg Foundation provides approximately DKK 100 million per year to support research projects, academic fellowships, research assistance, instruments and other equipment, publication costs and participation in conferences etc. Natural sciences, mathematics, philosophy, social sciences and the humanities are particularly mentioned in the regulations, but projects should be within basic research. Carlsberg Foundation has funded research relating to developing countries, i.a. a project on mangrove forest in S.E. Asia. Carlsberg Foundation has also funded research on human rights issues.

Novo Nordisk Foundation supports research projects within natural and medical sciences, including nursing. Most of the support is provided for equipment and running costs, but there are provisions for senior academic fellowships for purposes of basic research. A minor and temporary (1996-2000) provision is made for support to research

in art history. Novo Nordisk Foundation offers an annual research prize worth DKK 1 million for outstanding research within its main areas of interest in medical sciences. The prize for 2000 was awarded to the RUF research professor in medicine (Peter Aaby) for his epidemiological work, especially regarding vaccination against measles.

Novo Nordisk Foundation provided approximately DKK 60 million in research support to various projects in 1999.

Research Advisory Boards

As indicated above, most government ministries hold research appropriations in their annual budgets. Ministries with an interest in research commonly appoint research advisory boards and since 1996 most of these have been regulated by the Act of the Research Advisory system. Some of these hold authority to receive applications and grant research funds, others work in an advisory capacity only. Similarly, there are differences between the ministries with regard to the management of research appropriations. Many ministries have financial and budgetary responsibility for particular sectoral research institutes (that may be funded through core grants and programme funds), but research funds may also be disbursed through e.g. the research councils or through direct grants on the basis of research proposals. Finally, ministries may also participate in a number of Strategic Research Programmes cutting across sectors and operating on the basis of contributions from all ministries with interests attached to the programme. Some of the strategic programmes have their own autonomous governing bodies and secretariats, others may be located with a research council or a specific line ministry.

One particularly significant Strategic Research Programme, as far as development research is concerned, is the Danish Environmental Research Programme. This programme, which is managed by an independent Management Board, has been organised in 16 distinct sub-programmes on the basis of funding from a number of ministries. Between 1994 and 1998 Danida supported the sub-programme on Sustainable Use of Natural Resources in Developing Countries, which established three 'virtual research centres' for the duration of the research period, with a focus on Semi-arid Africa, the Sahel region and the Andes region respectively.

DANCED

A particular mention should be made of DANCED, the Danish Co-operation for Environment and Development under the Ministry of Environment and Energy. This programme, which is one of three environmental co-operation programmes funded from the MIFRESTA¹⁴ vote of the Folketing supports environmental projects in Thailand, Malaysia and the Southern African region. Projects are to a large extent based on the provision of Danish know-how, research and consultancy services. Danish consulting companies provide most of these services. Since DANCED interventions are so strongly research-based, the Ministry of Environment has provided funds for a sub-programme known as DUCED (Danish University Co-operation on Environment and Development) for the particular purpose of building capacity in Denmark and the developing countries.

¹⁴) *Miljø-, FREds og STabilitetsrammen – MIFRESTA – is a budget framework voted by the Folketing over and above the regular development assistance appropriations to Danida, for purposes relating to the promotion of environmental concerns, peace and stability in the Arctic region, in Eastern Europe and in a number of developing countries that do not qualify for Danida programme support.*

DUCED is in turn organised in two university groupings (containing Danish universities and partner universities from the regions where DANCED is active). The first of these is known as the 'green consortium' or SLUSE (Sustainable Land Use and Natural Resources Management) and is co-ordinated by the Royal Veterinary and Agricultural University. The second is the so-called 'brown consortium' or I&UA (Industrial and Urban Areas) co-ordinated by the University of Aalborg.

The university consortia jointly offer training programmes within their respective fields, but the university staff assigned to these programmes may not charge research time to their respective consortia. The funding made available is specifically for teaching. Research associated with the teaching programmes, or on which the teaching programmes are based, must be funded separately. In the same vein, i.e. strengthening of the Danish resource base, DANCED has provided budget contributions to fund capacity-building measures at the three sectoral research institutes owned by the Ministry of Environment (National Environmental Research Institute, Danish Forest and Landscape Research Institute and the Geological Survey of Denmark).

DANCED does fund research activities, e.g. a programme on people-forest interactions in Thailand but is not seen as a major source of research funds. However, a number of DANCED projects contain components that may be classified as research or research-like activities.

Danida and Research

Development research is a minute component, by any measure, in the Danish research system. Although support to development research may be granted from the limited discretionary funds available to the universities and occasionally from the research councils, funding of any development research that requires funds beyond expenditure on staff time remains for all practical purposes closely tied to Danida. This is not to say that Danida is the exclusive source of funding for development research, but rather that development research is perceived by both researchers and research policy makers as being within the domain of development co-operation rather than within the domain of research policy. As competition for public research funds has increased, it is claimed, funding for development-related research has increasingly been squeezed out of the research councils and relegated to Danida. Before turning our attention to Danida, however, it should be noted that there are, in Denmark, significant research environments like e.g. the Institute of Anthropology or the Carsten Niebuhr Institute of Near Eastern Studies in Copenhagen, where much of the research being carried out may be of relevance for Danish development co-operation and foreign policy, but where the researchers do not see themselves as being involved in "development research", nor are they commonly seen as such by their colleagues.

As will be discussed below, it is fact quite difficult to find out exactly how much money Danida actually spends on research. The level of funding of items classified as research in the annual parliamentary appropriations has, in spite of some fluctuations, shown a steady increase throughout the 1990s, with an average annual rate of increase of between 11 and 12 per cent.

2. CONTEXT AND STRUCTURES OF DANISH DEVELOPMENT RESEARCH

Research appropriations (Mill DKK – 2000 prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Min of Foreign Affairs	116,9	143,6	172,9	203,5	202,6	270,5	248,3	235,7	283,6

Source: *Analyseinstituttet for forskning.*

These 'official' research funds are managed by Danida's Research Department (StS.4) in the Ministry of Foreign Affairs. The funds are distributed on four distinct programmes:

Danida Research Programmes, 1992-2000 (Mill DKK, Current prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Council for Development									
Research (RUF)	24,6	25,8	40,0	45,0	44,0	47,0	47,7	42,0	49,5
ENRECA	23,4	25,8	34,0	41,0	48,0	52,0	56,0	56,9	59,0
Danish Centres									
(CDR only) ¹⁵	15,3	15,3	17,7	19,0	20,0	21,7	22,6	23,2	24,0
International research	47,0	51,0	57,8	65,2	119,4	118,2	100,5	91,7	91,0
of which CGIAR ¹⁶	41,2	42,0	37,9	40,1	101,2	96,0	82,4	70,0	70,0

Source: *Danida Annual Reports 1992-1999.*

The research budget for 2000 also contains the following items, over and above the items listed in the table:

- Danish Bilharziasis Laboratory DKK 30 mill
- Danish Institute of Seed Pathology DKK 15 mill
- Danish Forest Seed Centre DKK 7 mill
- ENRECA Health Network DKK 2.4 mill
- Network for Agricultural Research DKK 1.3 mill
- Poultry Network DKK 10 mill

This is, however, only part of what Danida actually spends on research. Funding for research is provided under a number of headings and management is distributed on a number of units in Danida. Some of this is classified as research support; in other instances, the expenditures are managed and accounted for under other headings. Danida's support to the Tropical Diseases Research (TDR) programme in WHO (DKK 16,5 million in 2000) is managed as support to a multilateral institution (which is obviously correct), and does in fact involve support to basic medical research. There may be a number of similar examples, which probably represent much less of a problem to proper management than to proper statistics.

¹⁵) The other Danish centres first appear in the Research chapter of the Annual Report in 1998.

They have been accounted for under other headings prior to this date.

¹⁶) The exceptionally large increase in 1996 must be seen in relation to the Danish policy of active multilateralism.

Council for Development Research

The Council for Development Research (RUF) is appointed by the Minister for Development Cooperation, but six of the 15 members are nominated by the six research councils. In terms of the structure of the Danish research landscape outlined above, RUF is not covered by the Act on the Research Advisory System but by the Act on International Development Co-operation. The Ministry of Foreign Affairs has opted to keep RUF outside the Research Advisory System, for reasons that are not entirely clear. This may be a reflection of RUF's limited function as an advisory board, although this function is in principle maintained in RUF's terms of reference. In practical terms, RUF operates as a research council. It has defined a number of research programmes that are supported through research grants, it provides some 10-12 Ph.D. fellowships per year to Danish researchers and it occasionally collaborates with the 'regular' research councils for particular purposes, e.g. co-funding of the RUF research professorships. There is also a particular funding facility in RUF for guest researchers from developing countries at Danish institutions, but this is a quite recent feature. Another minor component involves travel/field-work grants for Master's level students for dissertation research within relevant fields.

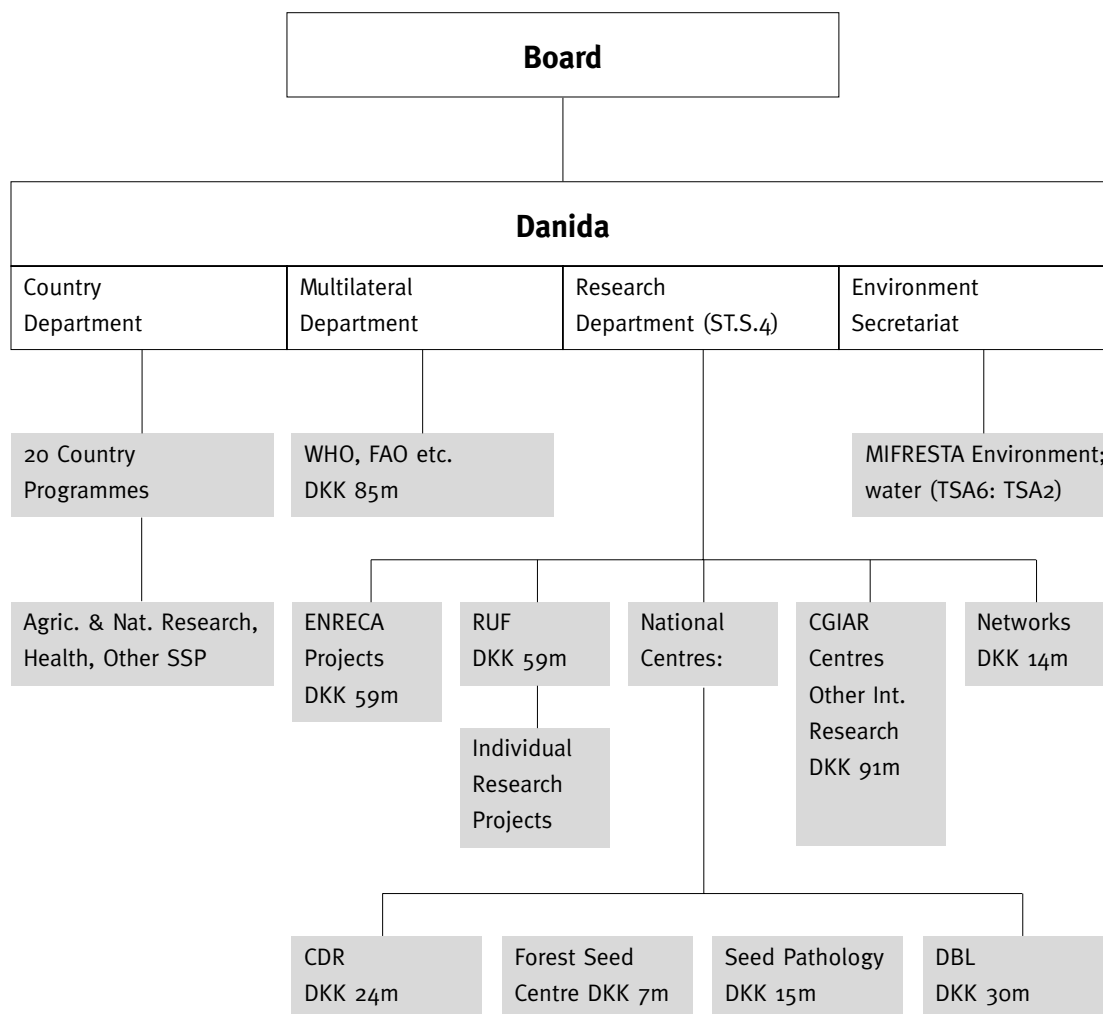
RUF is mandated to support research within all fields "where research and increased knowledge may promote the solution of the economic and social problems of the developing countries". Additionally, RUF is expected to contribute to knowledge, understanding and insight by the Danish public into the problems of the developing world. Hence, support is in general restricted to researchers with a clear attachment to Danish institutions.

RUF is managed by Danida's Research Department, where one staff member has a particular responsibility for it. Most administrative functions, however, are contracted out to the Centre for Development Research (CDR), which provides e.g. accounting services and maintains the RUF database in which all RUF research is entered. RUF receives research proposals and grants support to a number of independent research projects, normally for a period of three years. RUF has also defined some larger research programmes and is in the process of reserving some 25 per cent of the available funds for such broader initiatives:

- **Development Economics Research Group (DERG) (1996-2001).** This programme covers research projects on:
 - developing countries in the global economy
 - economic development policy
 - agriculture and environment
 - and supports research activities at three economics departments at Danish universities.
- **Fires in Tropical Ecosystems (1996-2000).** This programme supports research on the effects of tropical forest fires on the environment at several different levels, from the bio-diversity of non-vertebrate organisms to emissions of greenhouse gases.
- **Livelihood, Identity and Organisation on Situations of Instability (1996-2000).** This programme supports research on how local communities are affected by situations of high mobility (of people, ideas, resources) and instability.
- **Society in crisis (1999-2002)** This programme supports a multidisciplinary study of the consequences of the crisis in Guinea-Bissau on:
 - health
 - social and cultural features
 - crisis management.
 - psycho-social effects of conflict.

Danida Research Funding

(indicative figures for 2000) m = million



RUF has, starting in 2000, provided support for ‘centres without walls’ in environmental sciences (on African dry-lands, agroforestry and aquaculture) partly as a follow-up to the research supported under the Strategic Environmental Research Programme, partly as a new initiative.

Additionally, the following programmes are under preparation:

- Agricultural production in developing countries, food security and food quality
- Urbanisation
- Sustainable resource management.

Research Professorships

Between 1995 and 2000, RUF has co-funded (with $\frac{2}{3}$ of the expenditures) two research professorships:

- Tropical ecology, co-funded with the Research Council for Agriculture and Veterinary Sciences. This professorship has been attached to the University of Aarhus and has in particular focused on research on tropical mangrove forests in S.E. Asia.
- Tropical medicine, co-funded with the Research Council for Health Sciences. This professorship has been attached to the Statens Serum Institut and the research effort has been focused on health issues (particularly the long-term effects of vaccination programmes) in a large population in Guinea-Bissau.
- A third research professorship, also for five years, in development economics, was announced late in 2000 and will be established in 2001.

Finally, RUF has since 1998 provided funding to support the secretariat of a Network for Agricultural Research for Development. This network is primarily intended to promote greater interactions between agricultural researchers and development agencies, with the aim of making Danish agricultural research increasingly relevant to development work.

The Bilateral Programme for Enhancement of Research Capacity (ENRECA) in Developing Countries

The ENRECA programme was set up in 1989 to provide Danish assistance to the strengthening of the research sector in developing countries. The main vehicle for such support is a twinning arrangement between one or more institutions in the developing country with one or more Danish university/research institutions. The programme is managed by Danida's Research Department, where two officers are responsible for it. An evaluation of ENRECA was carried out in 2000.¹⁷

ENRECA invites joint research proposals that must be clearly rooted in some research problem relevant to the situation of the developing country in question. Emphasis is put on creating capacity for research and teaching through joint research and advanced training of staff, often organised as sandwich programmes between a Danish university and the developing country institution in question.

At present, there are 43 ENRECA projects in 22 countries. This is seen as an absolute limit in terms of the administrative capacity available, so new ENRECA project can only be approved as mature projects are phased out. The ENRECA regulations stipulate a maximum project period of 12 years, organised in 4 consecutive 3-year phases. Interesting, new proposals identified on the basis of a yearly round of 'expressions of interest' may receive planning funds through an 'initiative pool grant' to develop the partnership and a properly worked-out proposal.

There are at present ENRECA projects within

- Agriculture, in Zimbabwe, Kenya, Tanzania, Uganda, Malawi, Vietnam, Bolivia and Nicaragua (initiative pool grant only)
- Business and commerce, in Kenya and Ghana
- Culture (preservation of manuscripts), in Bhutan
- Economics and social sciences, in Tanzania, Uganda, Egypt, Central America
- Environmental studies, in Ecuador, Ghana, Thailand, Indonesia, Senegal, Burkina Faso, Tanzania, Uganda

¹⁷) ITAD/ODI: "Evaluation of Danida's Bilateral Programme for Enhancement of Research Capacity in Developing Countries". August 2000.

- Fisheries, in Vietnam (initiative pool grant)
- Good governance, in Ghana, Tanzania
- Health research, in Ghana, Burkina Faso, Mozambique, Madagascar, Egypt, India, Nepal, Bangladesh, Uganda, Kenya, Tanzania, Guinea-Bissau, Vietnam
- Institutional development, in India and Uganda
- Technology, in Ghana
- Water supply and sanitation, in Tanzania and Ghana
- Natural resources chemistry, in India.

Danish Research Centres

Danida provides core support grants to four Danish research institutions with a research agenda closely tied to issues in the developing countries. Some of these obtain additional funding for particular projects under the two previously mentioned programmes, (RUF and ENRECA) while others have research co-operation, research training and capacity building built into their core activities.

Centre for Development Research (CDR)

Centre for Development Research, CDR, is an autonomous research institute established in 1969. In legal terms it is not a sectoral research institute. Its board is appointed by the Ministry of Foreign Affairs, however, and it receives a yearly basic support grant from Danida. (DKK 24 million in 2000). In addition to activities funded from the basic budget (research and publication work, library services) it receives project funding from RUF on the basis of regular research proposals and it operates ENRECA projects in Tanzania, Kenya and Egypt. Approximately 30 researchers (permanent staff, project-funded researchers and Ph.D. students) work at CDR, distributed with approximately one third in each category. CDR also accepts guest researchers from developing countries and accommodates a number of graduate students doing dissertation research.

The CDR Library contains Denmark's largest collection on development issues, with 60,000 volumes and subscriptions to 800 journals and magazines. It is a major resource to development research in Denmark.

Research at CDR is organised in four research themes, with actual research programmes cutting across these four areas of interest. These research themes are:

- the political economy of globalisation
- managing development: people, states and international organisations
- conflict, movement and state formation
- people, society and nature.

Research *programmes* cut across the research areas and are often carried out in collaboration with researchers from other Danish institutions or from abroad. In 2000, research activities were organised in the following programmes:

- Sustainable agriculture in semi-arid Africa
- Livelihood, identity and organisation in situations of instability
- Local organisations and rural poverty alleviation
- Globalisation and economic restructuring in Africa
- Taxation, aid and democracy – the evolution of tax systems in Namibia, Tanzania and Uganda

- Development interventions and societal processes – the impact of Danish aid
- Forced migration, the dynamics of internal displacement, and development.

CDR derives part of its income from consultancy services carried out for Danish and international development agencies, as well as private-sector consulting companies. Priority is given to assignments that may be of value to the research programmes. Finally, CDR maintains the database on RUF research projects and provides administrative and financial services to projects that receive RUF funding.

Danish Bilharziasis Laboratory (DBL)

Danish Bilharziasis Laboratory was established in 1964 as a private foundation, set up to study snail taxonomy and ecology for the purpose of controlling schistosomiasis (bilharziasis). Since then it has expanded its mandate to cover research on human, water-related, vector-borne, parasitic diseases and associated health problems and it has evolved into a multi-disciplinary research centre providing a range of research, training and capacity-building services. DBL receives the bulk of its funding from Danida, which in 2000 provided a grant of DKK 30 million. In 1999 the Danida contribution covered 77 per cent of the annual turnover of the laboratory. DBL additionally receives RUF funding for research and operates two ENRECA projects, in Kenya and Mozambique respectively.

DBL has 14 permanent scientific staff and in addition hosts a number of Ph.D. students from Denmark and abroad. Research activities are organised in programmes relating to:

- Malaria
- Filariasis
- Schistosomiasis and intestinal worms
- Public health, including health systems research and medical anthropology
- Models and zoonotic infections.

Training is a main activity at DBL. Training courses on research methodology are conducted both at DBL in Denmark and at points in its research collaboration network abroad. But the most important part of the training component is organised in a Research Capacity Strengthening Programme under which 7 Ph.D and 6 Master's degrees were completed in 1999 by students from developing countries, with an additional 34 Ph.D. students and 27 Master's students at various stages in the pipeline. DBL does not itself award degrees but provides research facilities and supervision for research projects.

A third field of activity at DBL is consultancy work, and the provision of technical services through the maintenance of a reference collection of snails and bivalves, the maintenance of a specialised research library, as well as specialised services within DBL's traditional areas of expertise. Technical co-operation, advisory and service functions are important components in DBL's portfolio. These activities partly deal with health issues in a broad context and partly consist of specialised contributions within more narrow technical fields.

Danish Government Institute of Seed Pathology for Developing Countries (DGISP)

This institute was established in 1967 by Danida. It is now attached to the Royal Veterinary and Agricultural University as a specialised institute. It is staffed by 4 professional scientists and 12 support staff. Danida provided a core support grant of DKK 15 million in 2000.

In addition to staff research projects in general seed pathology, bacteriology, mycology and virology, the main activity of the institute is training. The institute offers a 9-month diploma course and six short course modules within specialised topics. Trainees range from laboratory technicians to seed pathology researchers, mostly from abroad. The shorter course modules may be organised at laboratories in developing countries, in which case DGISP has provided the equipment necessary, both for teaching the course in question and for subsequent seed control work.

Danida Forest Seed Centre (DFSC)

The Danida Forest Seed Centre was established in 1981 to succeed the Danish FAO Forest Seed Centre, established in 1969. DFSC provides research and technical support to developing countries in the fields of procurement and handling of seed of tropical and subtropical tree species, basic tree improvement and conservation of forest gene resources. It is staffed by 10 professional and 4 support staff. The Danida contribution to DFSC in 2000 was DKK 7 million.

Activities are organised in:

- *A base programme*, involving research, the preparation of manuals and general information relating to conservation of forest genetic resources, the improvement of genetic and physiological quality of forest tree seed, and for the solution of problems of seed procurement. Most of this work is carried out in close co-operation with network partners in the developing countries and at CGIAR centres
- *Project support activities* that consist of advisory services, training courses and consultancy support. The Project Support Programme forms the major part of DFSC's training and extension activities. Much of the transfer of knowledge and experience gathered by DFSC takes place via the direct support to projects. Most of these are Danida-supported national forestry development programmes. Tree seed programmes financed by other organisations and forestry programmes financed by Danida may receive technical support from DFSC. Training courses may be arranged in seed source identification, seed collection, establishment of seed laboratories, elementary tree improvement, and conservation of forest gene resources.

Most consultancies include a component of on-the-job training of the project staff in a range of technical and practical subjects.

International Research

Finally, Danida provides considerable amounts of support to international research, most significantly to the Consultative Group for International Agricultural Research (CGIAR). Out of the DKK 91 million provided to international research in 2000, DKK 70 million was allocated to CGIAR centres. The CG centres enjoy a favoured position of trust and high credibility in Danida. Most of the Danish assistance is provided as unrestricted core funding.

The reorientation that has taken place at the CG centres over the last 10 years to meet challenges of food security for the poor is largely seen as conforming to Danida's policy concerns with regard to poverty alleviation, sustainability, protection of the environment and the situation of particularly disadvantaged groups, such as women. Furthermore, a number of Danish research institutions have entered into active research collaboration with CG centres, at the same time as the number of Danish professionals

at the CG centres and in their governing bodies has increased. The outlook for continued Danish support and the expansion of co-operation is good. The most significant note of warning sounded in the recently performed evaluation of Danida's co-operation with the CG centres¹⁸ concerns the highly controversial issue of research on genetically modified breeds.

In addition to the CG centres, Danida provides support to various international research centres (such as ICIPE in Kenya, UNRISD in Geneva, IIEP in Paris and the Nordic Africa Institute in Uppsala). It also supports research organisations like the International Foundation for Science (IFS), the African Economic Research Consortium (AERC) and CODESRIA in West Africa, which in turn support scholars from the developing countries through small research grants, individual training fellowships and other training initiatives. All in all, some 20 institutions receive Danida support under this heading.

Networks

Finally, Danida provides support to three research networks in Denmark. This support has in earlier years been accounted for under other headings (RUF and ENRECA), but from 2000 onwards Danida specifies this support on the following:

- Network on Agricultural Research for Development (DKK 1.3 million for 2 years)
- ENRECA Health Network (DKK 2.4 million for 2 years)
- Network on Poultry Production and Health (DKK 10 million over 2 years).

Other Research Support

In addition to the programmes managed by the Research Department, funds are spent by Danida on a number of research and research-related activities elsewhere in the Danida system. Inquiries within Danida indicate that such activities are distributed on a range of different headings, managed by several different offices and departments. They are difficult to locate in the available statistical material since Danida's project data base is not designed to capture this level of detail.

It is known that research-related activities are included in a number of sector programmes in Danida's programme countries. There may also (occasionally) be research support to individual projects, outside the sector framework. More commonly, however, there are research components to support specific sector programmes within e.g. agriculture, health, water and sanitation, environment and so on, often organised as support to the research wing of an implementing ministry or to a research institute established to service the sector. There may in addition be cross-sectoral initiatives which have been put into place through creative use of programme categories but not related to any specific sector. The table presented in Annex 3 is based on information provided by Danida, but due to the statistical limitations mentioned above, the quality of this information is unsatisfactory.

Particular mention should be made of Danida's Environmental Secretariat set up to manage Danida activities within this particular field with funding from the MIFRESTA facility. Several projects accepted for funding are heavily research-based and many of the projects contain large segments of research. Several Danish research institutions take

¹⁸) COWI: *Analysis of Danish Assistance to the CGIAR Centres, August 1999.*

part in these MIFRESTA-funded projects to support the research aspects, but so far the Environmental Secretariat policies have not arrived at a clear division of responsibilities with e.g. RUF.

Danida also provides research funds through the multilateral channel that may not necessarily be accounted for as research. Danida's support to WHO contains contributions to WHO's TDR (Tropical Diseases Research) programme and there are similar cases for other UN institutions. Contributions to the development banks (World Bank, regional development banks) similarly contain significant contributions to research and research-related activities. In a note to the Danida board reporting on research support in 1998, Danida's Research Department estimates that the expenditures for research through these various channels amounted to DKK 85 million, but warned against the accuracy of the figure. In the corresponding note for 1999, the Department simply states that it is not possible to estimate the research expenditures disbursed through these channels with any degree of certainty, and refrained from making an estimate.

Finally, Danish embassies/Danida missions abroad may initiate minor projects, including research projects, under the Local Grant Authority held by the embassy. Projects of up to DKK 3 million may be approved and implemented locally, with little involvement from Danida's Research Department. There are anecdotal indications that this local facility has been used quite imaginatively by Danida officers also to support research, which was confirmed through a visit to the Danish embassy in New Delhi. However, there is very little systematic information available. Research projects funded over the Local Grant Authority must in any case be limited to local institutions, i.e. they are not supposed to include collaboration with Danish institutions, and they are likely to be minor, individual efforts of limited scope.

Status

The conclusions that may be drawn from this review of Danish development research and its place in the Danish research landscape, is that:

- Only a small fraction of Danish expenditures for research is spent on development-related issues
- Development research in Denmark is primarily treated as a development co-operation issue, not as a research issue
- Danida is the main funder of development-related research in Denmark.

3. Mapping Danish Development Research

It was pointed out in the preceding chapter that Danish development research to a large extent depends on Danida. In this context, it is important to distinguish between the university core budgets, which cover staff costs, and the external funding often required to actually carry out research, particularly field work. The research councils seem to have taken a limited interest in this part and provided funding only to a limited extent. Exactly how much the research councils actually have provided is not evident, since the research councils do not provide reports in a format that allows easy identification of such a category of projects. The various units implementing research (universities and research institutes) have few independent resources for research beyond what is provided in the research council structures, at least for research within this field. There are, in other words, few 'Cigar Boxes' open to development related research.

Funding Sources

It has not been possible to assemble precise information on various sources of funding to refute commonly heard assertions and anecdotal evidence that Danish development research has been crowded out of the research councils due to fierce competition for available funds here and a comparatively generous Council for Development Research (RUF). The research councils do not use development research as a category. A search of the DANDOK database for research projects in the 20 Danida programme countries, however, yields the following overview:

Research projects in Danida programme countries registered in DANDOK data base

	Council for Development Research RUF	Other Research Councils	National AGREP Focal Point (numerous sources)	Other	National Biotechnology Programme ¹⁹
Bangladesh	13		1		
Benin	4		1	1	
Bhutan ²⁰					
Bolivia	4	3	2		
Burkina Faso	5			1	1
Egypt	3				
Eritrea	3	1			
Ghana	17		3	2	
India	6	1	2	11	
Kenya	12	1	4	4	
Malawi	2		1		
Mozambique	2	1			1
Nepal	10		6	6	
Nicaragua	3		3	1	
Niger	2	1	2	2	
Tanzania	43	3	10	5	
Uganda	15		3	1	
Vietnam	11	1	1	3	
Zambia	2		2	1	
Zimbabwe	10	1	7	3	1

- The information is sorted by the source of data on research projects, but the information available in the database does not indicate volume of funding or actual source of funding. Cross-checks with the RUF database, however, indicate that project information provided by RUF actually involves projects funded by RUF. The information provided by AGREP (Agricultural Research Projects in the European Union) Focal Point covers i.a. projects carried out by Danish Forest Seed Centre and the Institute for Seed Pathology.
- The information provided by the other research councils covers several comparatively small projects, e.g. publication subsidies.
- A surprisingly high number of 'Other' projects were funded by a research programme on energy funded by the Ministry of Environment and Energy.

This information does seem to confirm, however, that RUF provides the bulk of support for development research in Denmark, even if there are other sources of funding.

¹⁹⁾ All three projects involve a large malaria research project, involving a number of European and African research institutions.

²⁰⁾ There is an ENRECA project in Bhutan, involving the conservation of rare manuscripts.

3. MAPPING DANISH DEVELOPMENT RESEARCH

A significant initiative not covered by the information from DANDOK involves research and teaching supported by the Ministry of Research through the core grant to the University of Copenhagen. The North/South programme has been accepted in the performance contract between the Ministry and the University as one of the four main priority areas for research and teaching, which means that the University of Copenhagen may use funds from the core grant on these activities (approximately DKK 2.5 million per year in the contract period). In addition, the University of Copenhagen will distribute a total of 9 Ph.D. fellowships reserved for the North/South initiative. This is also a point in the structure where the contributions of the Ministry of Education are made visible. It allows Master's students accepted to the African Studies Programme of the university an additional year of support under the government funding scheme for students.

The College of Danish University Rectors commissioned a small study on the involvement of Danish universities in development work, in response to Danida's new strategy.²¹ The remarkable thing about this study is that it exclusively discusses university participation in Danida-funded programmes, such as ENRECA and projects funded by RUF. There is absolutely no mention of the resources that the universities themselves provide to development research, nor is there any discussion of any university strategy with regard to deployment of university resources for such purposes in the future. But the report provides a useful overview of the relationship between the universities and these two Danida programmes. There are no doubt research projects within the universities that may be supported from sources outside RUF. The university core grants may support in particular research projects that do not require many resources beyond the time of the researcher(s) in question, and there is occasional mention in e.g. university annual reports of research support from international sources or private foundations. But the overall impression remains that RUF is the dominant source of funds for development research in Denmark.

Distribution of Danida Resources

Hence, an overview of the distribution of RUF funds should give a reasonably good indication of some overall features of Danish development research:

Distribution of RUF and ENRECA projects, by area of interest

	RUF 1998	ENRECA 1998	RUF 1999	ENRECA 1999
Agriculture	18%	16%	18%	11%
Health	11%	28%	25%	29%
Social Sciences	32%	21%	35%	22%
Humanities	15%	2%	n.a. ²²	2%
Natural sciences	20%	31%	5%	34%
Technology	4%	2%	5%	2%

Source: *Universiteternes rolle i bistandsarbejdet*.

²¹) *Nord/Sydunderlaget, KIO/RIU: Universiteternes rolle i bistandsarbejdet*, juni 2000.

²²) *There is no indication of support to projects in the humanities in 1999. 12 per cent, however, is apparently set aside for conferences, seminars, publications, etc (distributed with 7 per cent for social science, 3 per cent for health/natural sciences and 2 per cent 'Other')*.

The geographical distribution of RUF projects also broadly reflects the distribution of Danish bilateral assistance. For ENRECA projects this is not the case to the same extent, except as an indication of order of importance:

Geographical distribution of RUF and ENRECA projects

	Bilateral ODA 1998	RUF 1998	ENRECA 1998	Bilateral ODA 1999	RUF 1999	ENRECA 1998
Africa	51,4%	48%	76%	52,9%	50%	71%
Asia	23,0%	30%	19%	26,3%	27%	22%
Latin America	9,1%	8%	5%	8,7%	8%	5%
Global/Regional	14,4%	12%		12,1%	15%	2%

Source: *Universiteternes rolle i bistandsarbejde & Danida Annual Report 1998, 1999.*

Participation in development research, by number of projects

	RUF 1998	ENRECA 1998	RUF 1999	ENRECA 1999
Copenhagen University	22	10	9	12
R.Veterinary & Agricultural U.	12	7	13	8
Aarhus University	2	3	6	2
Aalborg University	3	2	2	2
Roskilde University Centre	2	2	6	3
Odense University	1	1	1	1
Copenhagen Business School	2		1	
Danish University of Education			1	
Centre for Development Research	6	3	2	3
Danish Bilaharziasis Laboratory	2	1	1	1
Rigshospitalet	2	3	3	2
Statens Serum Institut	3	2	5	2
Risø Research Centre			1	
Danish Agric. Research Inst.			2	
Technical University of Denmark		2		2
College of Pharmacology		3		2
Others	2		5	1

Source: *Universiteternes rolle i bistandsarbejdet.*

As far as participation from Danish universities and research institutions is concerned, there is a clear pattern. The Royal Veterinary and Agricultural University (KVL) dominates the landscape, together with the University of Copenhagen. Both institutions have also initiated programmes involving research and teaching on issues relevant to developing countries and the development process of their own, i.e. without Danida funding.

Review of Danish Development Research

The information presented above indicates that the bulk of Danida funds provided through RUF for development research in Denmark is spent on research within the three main sectors of social sciences, health research and agriculture.²³

In connection with the present report, three independent reviews of these three sectors of Danish development research have been organised (see reference in Chapter 1). As the full reports of the reviews will be made available by Danida, only some of the main features of the three research sectors in question will be highlighted here.

Social Sciences

Development-related social science research in Denmark is carried out in a wide range of research institutes, the universities, and to a lesser extent, by consulting companies and even non-governmental organisations. Some of these work in partnership or twinning arrangements with institutions in the developing countries. The overall picture is quite complex and patchy. There is no overarching framework for the conduct of this research. The agenda for research seems to be driven more by the interests and professional histories of the research institutes and researchers, rather than by direct reference to the Danish policy framework for development. Except for the annual seminar organised by the Association of Development Researchers in Denmark (FAU), there is no national, inclusive forum to bring researchers and research institutions together, either with each other or with other stakeholders such as Danish civil society organisations, NGOs, private consulting firms and Danida itself.

Danida, through its funding of CDR and through RUF, is the most important source of funds for development-related social science research in Denmark. Although the main criteria stipulated by RUF in order to qualify for grants are scientific merit and general bearing on development, emphasis is being placed on relevance to Danish assistance. The synergy between RUF research priorities, however, and Danida policy is still poorly conceptualised. To that extent, RUF's practice may have contributed to a broadening of the research base, but with inadequate focus on areas critical to Danida's mission and mandate.

In the social sciences, the development research currently pursued in Denmark embraces many areas and themes. The majority falls within what is described as "soft" rather than "hard" research, i.e. it is not mapped onto Danida priorities and not explicitly oriented towards action or decisions regarding development interventions or policies. The reviewers also note either the near-absence or inadequately focused research in some important areas (see more on this in Chapter 4). Furthermore, much of the research concentrates on historical themes that, according to the reviewers, need to be developed, reshaped and made more relevant, not only to Danida's development activities, but also to the current international debate. Until recently development institutions were still operating research projects that responded only weakly to the changing global context of development. Moreover, where new themes have been adopted, sometimes the impression is that this amounts to old wine in new bottles. The labels may have

²³ For the sake of convenience, natural resources management is here merged with agriculture. A lot of the research referred to above as 'natural sciences' involves life science subjects like biology closely related to this field.

changed under which development research is conducted, but this has not always resulted in a significant infusion of new, more contemporary insights or paradigmatic shifts.

Ideally, a national process of research prioritisation should result in a greater direct contribution both to poverty reduction in developing countries and to the enhancement in the effectiveness of Danish assistance. It must ensure that the research agenda is driven in an inclusive manner through open discussion, and importantly, that the need to provide relevant support to Danida is met. This sharper focus will also contribute to raising the international standing of the research output. Currently, there exist important pockets of individual excellence within the university system and the research institutes, but the overall impression is that much of the social science research remains supply-driven and of questionable relevance in terms of its contribution both to poverty reduction in developing countries and to the enhancement in the effectiveness of Danish assistance.

As a grant giving authority, RUF maintains a high level of independence and has therefore been flexible in funding research projects outside direct Danida priority areas. RUF interest in quality research proposals, with sound scientific bases, runs the risk of intensifying the classical tension between policy and science, i.e. while science attempts to understand and explain the reality of the world by generating more knowledge, the domain of policy – particularly development policy – is to change that reality.

Even where research is specifically designed to influence the course of policy, and where researchers are careful to cultivate contacts with the powerful, it is difficult to find evidence of the utilisation of findings and recommendations on a scale that comes near to matching the amount of such work produced.

The reviewers are of the view that with more prudent organisation of research, priority setting and a concerted effort to work out a distinctly Danish perspective on development research, Danida-funded social science research can make a difference. This should not be done at the expense of long-term incremental research.

Health

The review of the research within the health sciences found that health research for development activities supported by Danida provides a differentiated picture. Some of the activities are carried out in the international public sector, for instance through Danida's financial support to the WHO/TDR programmes. Others have their base in Denmark, typically with RUF funding or in a partnership between a Danish research centre and its partner in the South, in the format of ENRECA projects.

The quality and the volume of research output are good to very good. There is a clear and strong orientation on publishing in international peer reviewed journals. Participation in international workshops provides another way of enhancing and securing the quality of research and publication. Given the limited size of the arena for Danish health research for development, it is of great importance that linkages to other arenas, research centres and individual researchers are fostered. For this purpose participation in international workshops and conferences is essential, as is the organisation of such events in Denmark. The ENRECA Health Network has been very active in organising seminars and workshops on important subjects like HIV/AIDS, water and sanitation, food and nutrition, reproductive health and malaria. This valuable tradition must be maintained and even strengthened.

The limited size of the Danish research arena has its advantages. The main actors know each other well and communicate regularly through activities of e.g. the ENRECA Health Network. The main danger is that the specific organisational and institutional arrangements in this modest and closely knit community change slowly, while in its international environment changes often occur rather quickly. The Danish research capacity is, further, highly stretched and lacks some of the elasticity necessary to adapt quickly to new and emerging issues. A good example is the field of HIV/AIDS research. Though internationally a very important health problem, also in countries where ENRECA projects are situated, this has not led to mobilisation in Denmark of a major research effort geared to the developing countries. One could argue, of course, that a small country has to set priorities and limit its playing field. But given major role Danida wants to play in the global development arena one may ask if limitations set by a modest research capacity specifically focused on the South, are not too severe.

Presently, there are good opportunities to engage in a process of further strengthening health research for development capacity in Denmark:

- First, senior academic positions exist which can stimulate health research for development on a broad front
- Second, content wise, Danish research capacity in the field of health research for development appears to be strong in the field of malaria, although there are other foci of strength, for instance the study of use of medicines and of herbal medicine, food and nutrition, and water and sanitation/water related diseases
- Third, there are a number of strong ENRECA partnerships
- Fourth, there are plans to concentrate some of the major players in a joint location in a few years time.

With these points of departure it is recommended to further investigate the feasibility of concentrating research capacity in an Institute of International Health for Development, to be core-financed by Danida and by the University of Copenhagen. The institute should, of course, have an interdisciplinary focus. Health economics expertise should be added to the existing expertise on clinical and laboratory research, health systems research, tropical epidemiology, and medical anthropology.

Health research for development by Danish research institutes is mainly funded by Danida through RUF or the ENRECA projects. The other Danish research councils are not a significant financing channel. In fact, request regarding financial support to research efforts pertaining to developing countries may not even be considered. This is an indication that such research is not a well integrated part of the national health and medical research agenda and community. This puts the onus on Danida also in the future.

In the *Partnership 2000* strategy, prevention of and relief from the effects of HIV/AIDS have a prominent position. Denmark aims to substantially strengthen efforts to curb the spreading as well as the impact of the epidemic in the poorest countries, particularly in Africa. Such an ambitious agenda requires a sound knowledge base for support, not only in the health field, but also in other development fields, including agriculture, public administration, education, and infrastructure.

In Denmark, there is strong laboratory and clinical research capacity regarding HIV/AIDS. However, this important capacity is not focused on developing countries. Nor is other knowledge on HIV/AIDS in developing countries well developed in

Denmark. Given its priority in development strategy, the question is how the specific HIV/AIDS related policy objectives should be implemented. It will take considerable time and great effort to build the knowledge base and research capacity required, but there is a danger that this would also take away attention, and possibly capacity, from other Danish strong points like malaria research. The question is not so much whether a knowledge base and research capacity should be created/strengthened, but much more where it should be positioned, how wide a field it should cover and how it could most efficiently and effectively be established.

The proposed Institute for International Health for Development, with inputs from various disciplines mentioned above, would bring together already available knowledge and experience on HIV/AIDS, and the often closely related re-emerging poverty disease of tuberculosis, using a strong network with partners in developing countries, and in Europe. It is strongly recommended to commission a feasibility study as a first step towards establishing such an institute.

Agriculture and Natural Resources

The review of the Danish agriculture and natural resources research found that the development research community in Denmark is small, but of high quality. The institutions have a strong national funding base and are generally ranked with the leaders in their respective scientific areas. The range of scientific capacity is impressive, as are laboratories, equipment, and training opportunities for scientists and support staff. The review team was impressed by the enthusiasm of much of the Danish research community to become involved in new areas and to contribute to the overall knowledge base for the international agenda. Key features of successful activities included small, charismatic leadership, good linkages with the poor in developing countries, an absence of bureaucracy in programme development and implementation, and an ability to adapt quickly and effectively to new issues and problems.

In Denmark, farmers and consumers are well linked to the research community through an efficient network of farm advisors. This has proved highly successful in creating widespread impact of research. In the development research effort, however, comparable linkages have not been created. Some two thirds of the funds provided explicitly for research by Danida are used for purposes over which the Ministry of Foreign Affairs has little direct influence. The outcome is a lack of cohesion between Danida priorities and the uses for which research funds are being used.

There are three main programme categories in agriculture and natural resources research:

Programmes supported by a high degree of 'core' funding

Core funding provides the continuity and stability necessary to undertake difficult and long- term research efforts. However, there is also the danger that programmes which rely on core funding which are not routinely and carefully checked against explicit goals and targets, can slip into complacency. Core funded Danida research includes:

- The IARCs in the CGIAR system
- National Centres
- 'Centres without walls'.

The latter involve three programmes proposed after the UN environmental conference in Rio in 1992 to sustainable use of natural resources in semi-arid areas of Africa, and

the sustainable exploitation and protection of biodiversity in the tropical rain forests of Latin America. Each effort had a different lead institute but all involved collaboration between institutes and disciplines as required under the funding rules. In each case a centre was set up. Core funding was assured for a five-year period although there was some evident expectation, at least by the research groups, that a stable base of future funding would become available. The work at each Centre was subject to both a midterm and end of project review.

The evaluations were, on balance, very positive regarding the scientific quality of the work carried out and its contribution to extending the Danish body of knowledge. They were more critical regarding the contribution to Danish aid activities, to the creation of interdisciplinary efforts, and in terms of the extent and effectiveness of information dissemination from the work.

Programmes which rely on a competitive bidding process

The uncertainty associated with this kind of funding means that activities are usually planned around a fairly short time horizon (1-5 years) and longer term efforts are funded in a series of phases. Depending on how ENRECA is defined (as research or development), between two thirds and a half of Danida funds are used in programmes subject to competitive bidding, mainly through RUF.

RUF operates largely independently of Danida. Research proposals in the areas of agriculture and natural resources are, however, sent for comment to the appropriate sector programmes within Danida. Proposals which do not receive approval from Danida, are not funded. However, the relevant sector programme staff do not have adequate time or manpower to review the RUF proposals. They also do not know how individual proposals fit within the overall budget of RUF and are thus unable to prioritise between proposals. In practice, Danida staff provide notice of 'no objection' to any particular research proposal rather than a positive endorsement. Both Danida staff and researchers are dissatisfied with the present system under which Danida provides core funding to RUF, which then allocates funds according to its own criteria and independently from Danida.

Programmes which are funded on an ad hoc basis

The Danida Sector programmes have some resources to support research directly. The exact amount is not defined but appears to lie in the range of 5-15 per cent of programme funds. Consistent with the key policy issues defined previously, an increasing proportion of research will be supported through the sector programme route. Such contract research, properly formulated with vision by researchers and Danida staff, can provide a valuable entry point for longer term research initiatives. However, the procedures for accessing sector research funds are very unclear. Unless these are improved markedly, the contribution of research to Danida's development aims will fail to achieve its potential.

Past communication between Danida and the research community on topics of mutual interest has been left much to be desired. The involvement of developing country partners in the definition of research agendas and projects has been less than desired, though the recent ENRECA evaluation shows positive examples (but ENRECA is not a RUF programme). The review process followed by RUF is too narrowly based, insufficiently linked to emerging issues in the developing world, and does not facilitate critical feedback on either donor policy issues or those of research priorities or focus. On the other hand, on an individual institutional basis, there are examples of excellent co-ordination. The

Poultry Network and the Danish Tree Seed Centre both provide models of well focused, pro-poor research activities which are well rooted in national competencies and which have a track record for quality. The Network for Agricultural Research for Development (NETARD) also deserves praise for breaking new ground by promoting cross-disciplinary co-operation, creating an arena where researchers and users of research can meet, and for developing a strategy paper within the agricultural development sector.

The recommendations from the review team reiterate the continued need for high levels of research support to the development process in the future and point to the need for a restatement of Danida's commitment to support research for these purposes. There is a need for reform, however, with respect to a greatly improved formulation of a coherent Danida research policy which must:

- Consider new structures for improving communication between the research community and other stakeholders in the developing countries and in Denmark;
- Consider new structures for the identification of gaps in research, setting goal and priorities
- Consider improved structures for research administration, for monitoring the research process and delivering research results to the right clients in the right form.

4. Main Issues in Danish Development Research

Introduction

As discussed in the last chapter, the three specialised reviews commissioned as part of this appraisal, portray a positive picture of much of the Danish development research. Within health research, the quality and volume of research output are deemed to range from good to very good; much of the work being done in agricultural and natural resources research is also considered of high quality and of direct relevance to the developing countries; and in the social sciences, performance may be more uneven, but there are a number of individual researchers who are prolific writers with excellent track records. In all three areas, there are many examples of outstanding work being carried out by Danish researchers, sometimes in close co-operation with colleagues and students from developing countries; the training programmes that accompany much of the Danish development research are important components of the overall efforts; and most of the research networks that have been established in different areas and with Danida-funding perform well and have become useful instruments for better co-ordination, dissemination of research and new initiatives.

Overall, then, Danish development research does not have a quality problem. However, there are a number of worrying trends and features that need to be addressed. We have chosen to deal with them in terms of four interrelated sets of issues:

- The Danish development research community is comparatively small and in several important areas, research efforts are patchy, fragmented or non-existing. Given current and future needs for knowledge, arising, for example, from an ambitious Danish development policy agenda, issues arise regarding priorities, funding, sustainability, possible synergies, organisation and co-ordination
- A large part of Danish development research is supply-driven rather than demand-driven and only in a limited way mapped onto Danida's priorities. This raises issues regarding Danida's "drawing rights" and the balance between instrumental research, designed to solve problems of users and policy makers, and "blue skies" research, where researchers are left to pursue their own ideas in ways that may take them – and us – in unexpected directions
- Despite recent improvements, the three reviews all point out that the links between Danida and the Danish research community are still generally weak and that major efforts must be exerted so as to rectify the situation, both because Danida has an ambitious development agenda that needs to be supported by research, and because it is necessary to achieve a better return on the considerable input of Danida's financial resources to development-related research
- Efforts within research co-operation and capacity building through the ENRECA Programme may be appropriate given the rather limited funds made available. However, they are insufficient to build research capacity in a systematic and integrated manner.

In the remaining part of this chapter, we will elaborate further on these four sets of issues.

The Danish Research Arena

According to the Health Research Review, the limited size of the Danish research arena has its advantages. The main actors in health research know each other well and communicate regularly through activities of the ENRECA Health Network. The same largely holds true in other areas of Danish development research. The Agriculture and Natural Resources Review warns against possible negative consequences of this “cosiness” factor: the potential lack of transparency which may make it difficult for those who are not part of the existing informal networks, to gain access to information and research funds. One point to consider regarding this concern is to have international experts pay review and support visits to Danish research institutions every few years. The same would seem to be appropriate in the case of RUF, where peer reviews are not commonly carried out.

While being small, the Danish research environment, however, is also rather diverse, with a wide range of institutions and researchers. These researchers and their institutions are engaged in diverse fields of development-related research, advisory and evaluation research, as well as capacity building in the field of graduate training and sometimes teaching.

The overall picture is quite complex and patchy. Thus, in the social sciences, a large number of areas/themes are being addressed, but as much of the research is supply-driven, some topics that may be considered important for policy makers are either not receiving any attention at all, or are being dealt with only by one or very few researchers. The reviewers note either the near-absence of, or inadequately focused research in a number of areas that have become prominent in development studies and development policy. They include gender studies; research on NGOs, civil society and social movements; research on information technology and culture; research on multilateral and regional organisations and the global development agenda; research on sustainable development (economies, policies, institutions, projects); and research directly dealing with conflict studies, complex emergencies and conflict management (pp. 24-25). We might add other areas as well, such as human rights and democracy, finance, trade, poverty studies, private sector development, culture and technology, and infrastructure development. Perhaps equally important, there are some lacunae in research-based area and country knowledge, such as the Balkans and Indonesia. On a more general level, the Danish research community is weaker on Asia and Latin America than on Africa.

There are different reasons for the present state of affairs:

- In some areas, Danish research capacity is highly stretched and therefore lacks some of the elasticity necessary to adapt quickly to new and emerging issues. A good example is the field of HIV/AIDS research. Though internationally a very important health problem, also in countries where ENRECA projects are situated, this has not led to mobilisation of a major research effort geared to developing countries in Denmark.
- An important issue seems to be, as suggested by RUF in one of its submissions to the Commission, that resources are spread too thinly, without necessarily reflecting strategic priorities or the highest quality of research. This may, for example, have been the case in RUF’s support of small, isolated research projects, and in Danida’s funding of ENRECA projects. There have been few systematic attempts to build critical mass in selected, high-priority research environments or on themes that have been given particular priority. When initiatives have been taken by RUF, they have come late and been rather modest. Danish development research has not enjoyed the potential benefits of the “Cigar Boxes” referred to in Chapter 2.

- It is also suggested by the health research review team that maybe “the specific organisational and institutional arrangements in this modest and closely knit arena change slowly, while in its international environment changes often occur rather quickly” (p. 30). Perhaps another, more important reason is the relative lack of competition in the Danish development research arena. At the moment, only the RUF funds are subject to independent and competitive quality assessment and control (although this is also disputed by some because of the lack of peer review).
- Currently, there are few focal points facilitating the meeting of all research stakeholders. This leads to supply-oriented research being the dominant type and the development of a research agenda not necessarily geared towards meeting pressing needs among users and decision makers. Such focal points would also seem to be important for synthesising, debating and controlling the quality of development-related research in Denmark.

One could argue, of course, that a small country has to set priorities and limit its playing field; and that it is hardly fair to criticise the existing Danish research community on the grounds that they are not producing the full range of knowledge types that seem to be required. However, a point of discussion remains whether limitations set by research capacity specifically focused on the South, are not too severe, given the major role Danida wants to play in the global development arena. There are basically three ways of dealing with this dilemma, in addition to making a case for additional funding. One would be to take care that strong linkages are fostered with international efforts. Another would be to strengthen capacity through better co-ordination, including organisational arrangements. Thus in the area of health research it is proposed to investigate the feasibility of concentrating research capacity in a new Institute of International Health for Development (IIHD). Various proposals have also been tabled to secure positive synergies between RUF and ENRECA projects. A third way would be to seek a new balance between core funding and competitive bidding, combined with new mechanisms for collaborative priority-setting on research efforts. While core grants are needed to provide institutional stability, competitive funding would likely put more pressure on performance.

During the course of our review, we heard statements to the effect that it is hard to sustain the Danish knowledge base, and that there are signs of erosion. In some areas, this is an issue. The Danish resource base is rather small and vulnerable to “leakage” to the big consultancy firms that are so important in the Danish development context, offer interesting jobs and pay higher salaries than the academic sector. The fact that most of the universities do not accord high priority to development studies, has also led to a weakening of development research within some disciplines. Thus while Danish competence was never very strong in economics, it seems that it is weaker now in political science than it was some years ago (particularly at the University of Copenhagen). The “cosiness” factor referred to above may also make the entry of new or late comers more difficult, as it is suggested in the Agriculture and Natural Resources Review.

On another level, sustainability is raised as an issue in the ENRECA evaluation. It is argued that a combination of growing financial pressures (mainly on the universities and their staff) and a range of more attractive options, mean that Danish research institutions and their younger staff are losing interest in ENRECA projects, particularly those which concentrate on capacity-building, rather than research per se. This is both because there may be few academic rewards in such projects, and because ENRECA’s

financial contributions are small compared with those of other government-funded programmes such as DANCED or Danida's SPS, or normal commercial consultancy work.

Hard and Soft Development Research

According to many observers, there is a "scholarship focus" and not enough of a "problem-solving focus" in much of the Danish development research.

In their report, the social science review team makes a distinction between "hard" and "soft" research. "Hard" development research refers to research that leads to the production of knowledge and ideas that can be converted to products, i.e. goods and services. In the case of the social sciences, this would include action or practice-oriented research where researchers work with policy and decision makers to find practical solutions to constraints. It also involves developing concepts and theoretical frameworks to guide present and anticipate future directions of change, including what is often referred to as policy research or policy analysis.

"Soft" development research, on the other hand, includes basic, theoretical research, not necessarily oriented towards action, but it can be innovative and explanatory. The emphasis is here on the production of knowledge, where research could be an end in itself. One of the main objectives of soft development research is to challenge simple policy assumptions through basic, often long-term research.

The review team argues that "for development research to be an aid to development co-operation, it should have an impact where development co-operation intends to produce tangible results in its overall mission of poverty alleviation" (p. 2). In their view, it is necessary that "hard, targeted context-specific" development research receives more attention in Denmark as well as in research co-operation. Such research deals with at least four prominent areas of intervention:

- Preparation, implementation monitoring and evaluation of development projects and programmes
- Research on development strategies and policies, including agriculture, industrialisation, the social sector, trade and economic restructuring
- Global strategic agendas, including environment, world trade, democracy, human rights, security etc.
- Technology development and transfer, as well as new technologies (including information technology etc).

There are different issues at stake here. First, as suggested in Chapter 1, development research should not be judged exclusively in terms of its direct, or instant, contribution to development; that is, solely according to whether or not it provides managerial "tools" in a narrow sense. Much of the research required by Danida will often be of a broad, policy-oriented and forward-looking type. On the other hand, Danida also needs instrumental, often short-term research designed to address immediate problems. More attention must, therefore, be paid to create synergies between research and development policy, processes and interventions, and to bridge the present gulf between policy and research.

This raises questions about Danida's "drawing rights" on the Danish research community, including what possible share of Danida's funding may reasonably be allocated to "blue skies" research designed to deal with future problems and the needs for preparedness (as discussed in Chapter 1). At the moment, it is unclear what Danida's drawing rights are and what role development research should play to support development processes and Danish development policy. This brings us to important issues related to the links between Danida and the Danish research community.

The Relationship between the Danish Research Community and Danida

There are many examples in Denmark of productive and mutually beneficial relationships between Danida and individual researchers and research groups. The Agriculture and Natural Resources Study, for instance, points to the Danish Forest Seed Centre and the Poultry Network as particularly good examples, but also the Network for Agricultural Research for Development (NETARD). Other examples are the ENRECA Health Network, the Danish University of Education, the Danish Centre for Human Rights and the increasing number of institutions as well as individual researchers who have become involved in Danida's sectoral programmes as well as other activities (like at CDR or RUC). However, despite the fact that Danida provides most of the support for Danish development research, links are still rather weak between the Danish research community and Danida. This is manifested in different ways:

- Some two thirds of the funds provided explicitly for research by Danida are used for purposes over which the agency in fact exercises little direct or active influence
- Most of the Danida-funded research is supply-driven. Projects and programmes are primarily based on the individual interests of scholars and their institutions, and their perceptions of needs rather than those of policy-makers
- There is an evident lack of cohesion between Danida priorities and the uses for which research funds are being used. Effectively, Danida staff provide notice of "no objection" to any particular research proposal rather than a positive endorsement
- There is insufficient integration of research into the design and implementation of Danida-supported development programmes. There is concern in Danida that much of the development research which it funds either is not relevant to Danish development co-operation, or is presented in a format which makes it largely inaccessible to policy-makers. There is also a lack of clarity as to the role that development research can play in support of development policy and programmes.

Both Danida staff and researchers are dissatisfied with the situation as it is. In Danida, there is a widespread feeling that large parts of the research community are unwilling to accommodate Danida priorities and policies; that support for research is planned and implemented in isolation from such priorities and policies; and that the value of Danida investments in Danish development research is, at best, questionable.

Within the research community, there is an equally widespread feeling that Danida is not really interested in utilising research for its own purposes; that the frequent turnover of Danida staff discourages the kind of long-term thinking which is essential for the productive use of research; and that "they don't read anyway" because of busy work schedules and other priorities. There is also the issue of independence: Development research, particularly in the social sciences, should be explicitly critical of aid

effectiveness and the vested interests institutionalised in development co-operation. Furthermore, some researchers fear that their passions are no longer “fashionable” – one can certainly sympathise with a person who has dedicated his/her life to working on India being told that India is no longer a priority country for Danida.

Whatever the truth of such suggestions and complaints, it would appear that at the very least there is a serious problem of communication that needs to be resolved. We suggest, however, that present frustrations on both sides are primarily caused by a number of ambiguities and vague or different expectations that follow from the lack of an overall direction and strategic framework.

Development Research in Denmark: Different Meanings and Institutional Ambiguities

As noted in the first two chapters of this report, knowledge about the developing world and a host of increasingly global issues is as legitimate field as many other fields of research. One might expect that it is an accepted public responsibility that such knowledge should be generated, maintained and made available in a society with an increasing number of international ties, including to the developing world. In these terms, it is difficult to see that development-related research is much different from other types of research that the national research system has been set up to produce. In fact, as discussed in Chapter 1, there is quite clearly more need for such research than ever before.

So far, however, development research has not enjoyed this kind of attention in Denmark. While there are important contributions to ongoing research efforts by the universities and other institutions (particularly in terms of salaries), the funding of development research has nonetheless primarily been regarded as Danida’s responsibility. Danida has established its own Council for Development Research (RUF); it provides core funding for four research institutes; it both funds and manages the ENRECA programme; and it provides support to international research through its multilateral programme. In comparison, the primary responsibility for supporting development research in Norway and Sweden lies with the universities and regular research councils, although both the Norwegian Ministry of Foreign Affairs/NORAD and Sida have, like Danida, become significant sources of funding for such research.

As discussed in Chapter 2, the present structure has grown in an ad hoc manner as new needs have arisen or been perceived rather than as a result of any strategy or deliberate direction. In the process, development research has come to be perceived as being within the domain of development co-operation rather than within the domain of the overall Danish research policy. Furthermore, the concept of development research, as it is used in Danida, has come to refer to a number of quite different activities.

Development research may be:

- **Research about developing countries**, which includes all aspects of research with a direct or indirect bearing on the geographical entities classified as developing countries
- **Research about the development process**, which includes research on all phenomena that can explain the situation of the developing countries and that can be shown to be relevant to improvement of the human condition in these countries

- **Research about development assistance**, which includes research on the relationship between developing countries and international and/or bilateral donors, with a particular emphasis on operational issues of development co-operation
- **Research as aid**, which includes various forms of co-operation to increase the resource base, to strengthen national research capacity and the ability of developing country institutions to undertake research. Research as aid is often justified by its contribution to the development process, but the research capacity aimed for need not be restricted to research about development. The need for massive investment in basic sciences is often mentioned as a priority area for research as aid
- **Research co-operation**, which may be seen as a special (and restricted) form of research as aid, with a particular emphasis on specific joint projects between institutions in the donor country and in the developing countries respectively, on the basis of perceived strengths, advantages or capacities of the former
- **Research as an international public good** may also be seen as a special form of research as aid. Here the emphasis is on research results rather than on researchers and research capacity. Research results which are important to specific problems in the development process may come from virtually anywhere, such as various Danish research institutes or from international efforts, such as the CGIAR system.

More than anything else, the lack of a coherent policy or strategy has led to a number of ambiguities and unclear expectations. We will use the Council for Development Research (RUF) and the Centre for Development Research (CDR) as examples to illustrate this point.

Raadet for u-landsforskning, (RUF) is usually translated into English as the “**Council for Development Research**”, but a more precise translation would be the “Council for research on developing countries”. This reflects a mandate that allows the council to support research that must be related to developing countries, that should illuminate certain aspects of the development process, but that need not necessarily be of direct relevance to the way Danida has organised its development co-operation programmes.

RUF has a particular mandate to support Danish researchers and the Danish research base. RUF procedures have therefore become similar to those of any of the other Government research councils, emphasising its role in supporting high-quality research, judged by regular academic criteria, within a very wide field (developing countries). While RUF has introduced criteria of relevance in terms of the overarching goals of Danida, RUF’s own understanding of those criteria is a contentious issue. RUF insists that quality is a primary concern and that relevance in terms of the development process does not necessarily coincide with relevance in terms of Danish development co-operation.

In our view, such ambiguities arise from the ambiguous position of RUF itself. In principle, RUF is a ministerial Advisory Board, set up to advise the ministry (Danida) on matters relating to the research needs of Danida and how Danida should spend research funds in support of its primary mission of development co-operation and poverty reduction. On the other hand, RUF has also become a regular research council, with a responsibility to foster and support Danish research within a field which is slightly exotic (at least to the extent that the other research councils do not feel any great need to support it), but for which there is public demand and interest.

RUF is obviously important to Danida, in terms of developing and maintaining research competence and human resources across a broad band of disciplines of direct relevance to

Danida operations, in contributing to the Danish knowledge base (particularly by awarding grants for Ph.D. training), in enlightening the public and in maintaining a high level of public sympathy and understanding of the situation of developing countries. These are all public needs that somehow should be met. The most contentious question seems to be whether or not Danida is best placed to meet these needs. RUF is primarily concerned with Danish researchers, working in Danish institutions, supporting research that is only indirectly useful to Danida's work in developing countries. There is clearly a line of thought running through many departments in Danida asserting that these needs should be met by someone else, and that Danida should focus its research spending on areas and activities directly relevant to Danida operations.

RUF does not see itself as Danida's department for research in these terms. Nor does it play an important role as an Advisory Board for Danida. But RUF nonetheless asserts that development relevance is a primary concern and that its research output is useful, the same way other academic research is useful within respective sectors of society.

In a paper to the Commission on Development-Related Research in Denmark (10 October 2000), RUF has presented a number of ideas on how to overcome some of the present weaknesses, including (a) resources being spread too thinly and (b) too little synergy between research and development. We will return to considerations regarding RUF in the next chapter.

The Centre for Development Research (CDR) in Copenhagen receives DKK 24 million as core grant from Danida. It is an autonomous institution under the Danish Ministry of Foreign Affairs and according to the 1989 amendment of the International Development Cooperation Act, its tasks are:

- To conduct social science development research
- To support the enhancement of research capacity in developing countries
- To support post-graduate education and supervise PhD students in collaboration with research institutes and universities
- To stimulate interest in social science development research in Denmark
- To communicate the findings of Danish and international development research
- To engage in consultancies to the extent compatible with other tasks.

The position of CDR in the Danish development research landscape is contentious, both among academic colleagues and Danida staff. According to the views of many colleagues in the social sciences, CDR has, over the years of its existence, not lived up to reasonable expectations to it as a leading centre for multidisciplinary development studies in Denmark. In Danida as well as in the Danish NGO community, CDR is seen by many as not being service-minded enough in its dealings with important user groups. To the extent that CDR has become a metaphor of much that is regarded as wrong with Danish development research and its links with Danida, this is an unfortunate situation.

There is currently a good deal of interesting research at CDR, in all the four main programme areas. CDR also fulfils a role in applied research and consultancy work. We suggest, however, that a major issue relates to its ambiguous identity. When it was decided to establish CDR, it was given a mandate that resembles the more academically oriented mandates of specialised research institutes under the Ministry of Research, such as e.g. COPRI. This implies that there are only vague and limited obligations for CDR

to have its research feed into aid-supported policies, strategies and programmes. It was, e.g., to engage in consultancies only “to the extent compatible with the other tasks”. In other words, while there are expectations from Danida that CDR should be much more of an ordinary sector research institute of the kind that other Danish ministries both own and fund, i.e. primarily as an applied research institute set up to serve the needs of the ministry in the exercise of its mandate, CDR does have a different mandate, more geared towards basic, long-term research. Its rather generous funding allows it to pursue this mandate without too much involvement in consultancies or short-term, commissioned research and without too much interference from Danida.

Like RUF, CDR has also presented a paper for the Commission (11 October 2000), in which suggestions are made to overcome some of the problems we have discussed. A new mission statement or mandate is outlined, and it is e.g. stated that the institution will place more emphasis on keeping more open lines of communication with Danida, and on “research that feeds into aid-supported policies, programmes and strategies, and which analyses the systems, processes and impact of aid”.

As we see it, it is necessary to reach a new agreement on the status and mandate of CDR. We will return to this in the next chapter. However, the main priority for Danida must be to adopt a research policy and strategy which remove current ambiguities and clarify the objectives behind the different research allocations. As part of such efforts, and as a necessary condition for such efforts to succeed, sufficient capacity must be put in place in Danida to manage research and forge closer links with the Danish research community.

Research as Aid: Capacity Building and Research Co-operation

According to a recent evaluation report, the ENRECA Programme makes imaginative use of a relatively small amount of money to support mainly public sector research capacity enhancement. Relevance to Danida’s overarching theme of poverty alleviation is well served and there is reasonably good coverage of its cross-cutting issues as well as increasing emphasis on programme countries. Host country partners are strongly committed to the Programme and feel a strong sense of ownership. The research is generally well in line with national priorities.

In terms of efficiency, ENRECA has shown itself to be cost-effective in using its financial and other resources to mobilise the enthusiasm of researchers from North and South, thus creating synergistic relationships. Furthermore, the Programme is credited for its huge research output; its flexibility and problem-orientation; its “sandwich” approach to PhD training; and the Health Network established to co-ordinate efforts in one important area.

An important issue, however, is that the effect of ENRECA efforts, according to the evaluation report, is sometimes blunted by the poor state of the host institution’s “organisational capital” (mandate, management procedures, policies, funding mechanisms, etc.). Problems are particularly severe where partner universities or other research institutions are hit by protracted financial woes. This also raises problems of sustainability. Part of the problem arises because ENRECA uses the enthusiasm of Danish researchers to select research areas and partners, rather than select activities based on an overall assessment of “need” or priority from the host government, institution or scientific authority. In addition,

various factors may predispose this process towards initiation by the Danish partner although this is by no means always the case.

While the current approach may be appropriate for a small programme such as ENRECA, and for a country such as Denmark in which the range of expertise related to developing countries is relatively small, the evaluation report recommends, i.a., that (a) a broad institutional assessment of the proposed host country partner be made as part of the application procedure, and that (b) the Programme be made more South-driven. This could be done by establishing a research fund to which developing country institutions with research capacity can apply on a competitive basis, with or without a Danish partner. The report also recommends, as part of its preferred general option, to develop synergies between the different research allocations already made by Danida, and to strengthen and relocate ENRECA within the Danida organisational structure so as better to reflect its bilateral nature.

Danida: Organisation and Capacity

Our meetings and interviews within Danida indicated that research is commonly recognised as an important part of the Danish aid programme. Indeed many Danida staff feel that more research is needed in order to understand better “the complexity of the development process”. Sector programme staff appear to have a particularly sophisticated view of research. Thus we heard arguments to the effect that research should be showing the way ahead for Sector Programmes, rather than following the currently conventional wisdom they reflect.

However, there is a widespread concern that Danida’s Research Department (StS.4) is both understaffed and isolated from the mainstream of Danida’s work (see Annex 5 for some comparative material from Sweden and the Netherlands). This is also brought up as an issue in the ENRECA evaluation, where it is argued that understaffing creates management bottlenecks in the daily work routines. However, another serious consequence seems to be that the Research Department may be able to allocate and oversee the various research funds (i.e. provide a secretariat function), but has limited capacity to stimulate the demand for research within Danida and the wider development community, and to translate these demands for research into manageable research programmes. In fact, a number of Danida staff suggest that the isolation comes from the Department seeing its main “constituency” as the research community rather than Danida. It also seems that the profile of the Research Department has been reduced and sidelined away from executive line management functions on the bilateral side of the ministry, to advisory, staff functions on the multilateral side.

It is difficult to judge whether or not the present “hands-off” policy practiced by Danida regarding research, and the still rather weak link between policy and research, are due to modest staffing or insufficient commitment from the highest level of Danida management. It is fairly safe to assume – until proved wrong – that it is a combination of factors. In the TSA Department, there are serious capacity problems, within an environment otherwise characterised by interesting and challenging ideas about how to make better use of research. However, there seems to be a dearth of ideas regarding research as aid (or, research as a potential aid intervention area in its own right) and a lack of sufficient commitment at policy level, signalled e.g. by policy statements being dispersed and muted, as well as the fact that Danida has chosen to exercise little

influence on Danish development research despite it being the dominant funding agency for such research in Denmark.

Need for a New Deal

Based on the above considerations, there is clearly a need to create a structure that can bring about a more productive relationship and forge closer links between the research community and Danida. Commitment from those providing the overall leadership of, and direction to, Danida is an essential prerequisite to positive change, as is the commitment from the Danish research community to put their assets and see themselves and their work more within a policy and development context than is often the case today. The major issue is the lack of a strategic approach that can set Danida funding in the context of all funding and support for development research in Denmark; that can provide direction to the ways in which the already substantial funds should be optimally utilised; and that can remove the present ambiguities, uncertainties and frustrations that, despite recent improvements, still characterise and affect the Danish development research community as well as their partners.

5. Options for Future Danida Support to Development Research

The preceding chapters have outlined some of the apparent paradoxes contained in the current situation. Danida is the major funding agency of development-related research in Denmark, but has a relationship to the research community characterised by distance and relative lack of involvement. Over the years, Danida has provided a substantial volume of financial support to development research, but is not entirely clear on what it expects in return; the research community depends on Danida funding, but has, in the eyes of many, provided little in return.

The main issues that arise from this situation are not issues linked to the research effort and the research output as such, but rather to what bearing this research output ought to have on Danida's work and main objectives. The information assembled for the purposes of this report seems to indicate that the quality of the research, in terms of normal academic criteria for assessing quality, is hardly the issue. Danida has for all practical purposes left the management of the research effort to the research community itself and has shown admirable respect for the autonomy and professional integrity of the research milieu. There are lacunae in the output and in the research capacity supported by Danida (as is outlined in the three specialised reviews produced for this report), but this is hardly surprising and must, if anything, be counted as a Danida sin of omission rather than commission. In other words, Danida has given the research community generous licence to define what is important research (in terms of the distribution of interests and skills in the research community, or in terms of national or international research challenges) and what is good research (in terms of academic quality and in terms of addressing important issues). Nonetheless, there is a widespread view that the research made available as a result of the generous support provided is neither what Danida needs, nor what it wants, nor something it can adequately use in implementing public policy.

An important explanation offered for this state of affairs is the considerable ambiguity that obtains in the relationship between Danida and the research community. There are unclear expectations on both sides. The relationship is not based on any clearly articulated policy of what Danida wants to achieve or any strategy guiding Danida towards whatever goals it has set for itself in the field of research. The researchers, on their part, work in environments where the pursuit of individual research interest is encouraged and indeed highly valued. On the other hand, there is a widespread understanding (some observers even say 'enthusiasm') in the Danish research community that Danida funds are primarily assigned to alleviate poverty in developing countries and that researchers accept an obligation to (somehow) contribute to that goal when their research is funded by Danida. The present structures do not seem to actively facilitate this overarching objective.

This frustrating situation seems untenable and clearly demands an initiative for change. The extent of change necessary, possible or desirable is open to debate, but it is suggested that leaving things as they are is so fraught with problems that something must be done. Hence, the zero option of doing nothing does not seem available.

Directions for the Future

The review team has primarily been asked to present main options for future Danida support to development research and to refrain from making more detailed recommendations, which will be the task of the Commission. We basically see two options. The first of these involves mostly modest changes and may be characterised as tinkering with the system in the hope that minor (but perhaps incremental) changes may be sufficient to release tensions and resolve conflicts. The second option is more radical and involves a more thorough overhaul of the system.

An important point of departure for both options is that Danida is engaged in three clearly distinct, but interrelated fields of activity within development research:

- The most important activity, in terms of the amounts of money allocated to it, is research support. Danida provides funds for research in Denmark, through RUF and through the four research centres that it supports, and abroad, primarily through the IARCs, but also through the quite large number of small institutes and regional research organisations that receive Danida funding. Some research support is provided through the ENRECA programme. Research support is also provided in a number of less visible channels, to the UN system, to the international development banks and to a lesser extent, to various developing country institutions that happen to be favourably placed in relation to a sector development programme in a Danida programme country. The common denominator of these different programmes seems to be that they all involve the expansion, refinement or maintenance of the international body of knowledge relating to a broad spectrum of issues of relevance to the developing countries. This body of knowledge is available as an international common good and anybody with a particular problem that needs attention can search available international research for information and answers. Danida's contributions in this field may be seen as a cost-efficient way of providing the knowledge base required for better development interventions and for better partnership.
- An argument frequently heard is that it is so expensive to contribute to this body of knowledge, in terms of the human resources and financial investments needed, that developing countries should simply be content with whatever knowledge is available and not waste their scarce resources on research. This view of research sees knowledge as a marketable commodity that can be bought by the developing countries for far less than it would cost to produce it at home. Even if this market conception of knowledge were true, there still are some minimum requirements that must be met for developing countries to sort, identify, evaluate and adapt available knowledge to the problems at hand. This in itself requires a certain resource base in terms of trained manpower, research-based teaching and functioning institutions. Furthermore, there is a lot of knowledge that cannot be imported and a number of functions, beyond those of adapting available solutions to local conditions, that must be met by a national establishment for research and higher education in any country. For such reasons, Danida provides support to *build research capacity* in a number of developing countries, principally through the ENRECA programme, but also through activities carried out by some of the Danish research institutes it supports, through the multilateral programme and through some of the country programmes. By its own admission, Danida's capacity to actually manage this exercise and contribute to the building of research capacity in developing countries is limited. The best it can normally hope for is the establishment of 'islands of excellence' that may not even be

very sustainable in the long run and may not be within the most important fields in terms of national research challenges in the host country. Furthermore, there is a danger that the ENRECA programme is in the process of depleting the enthusiasm and goodwill required of Danish researchers and research institutions to create viable ENRECA projects. Even so, ENRECA is seen as a successful programme in its own right up to now.

- Finally, Danida also has a *need for research in its own enterprise* of spending public funds as judiciously and as effectively as possible in its co-operation programmes with developing countries and international agencies. Danida operates in an environment of high uncertainty, often trying out novel approaches and new solutions. It works in situations and under conditions where precise information and feed-back is rare. Danida therefore has a constant need for research support. There is a need for better analysis at all levels, for systematic testing and monitoring of interventions, for rethinking old issues and for coming to grips with new ones, and for innovation. In some Danida departments, there is sophisticated capacity to access the best available information in the international body of knowledge for some of these purposes, while in others there are obvious shortcomings. Considerable amounts of money are spent annually on consultants who specialise in translating the knowledge available into workable solutions and programmes for Danida. Still, the need for additional research grows commensurately with the scope of Danida ambitions and the complexity of Danida work schedules. At present there are only poorly articulated policies on how Danida should meet such internal 'R&D' needs.

Towards a Strategy for Development Research

A Danida document dated October 1999 and entitled *Danish Development Assistance in the Field of Research* provides the main objectives of Danida's support of research. However, there is as yet no clear Danida policy or mission statement on how the different programmes and components of programmes described above fit together, or how they relate to the policy goals that Danida has set for itself in the new strategy of *Partnership 2000*. According to the *Partnership 2000* policy document, however, the following expectations to continued support to research are indicated:

- Research and research-based knowledge should be "integrated into dynamic improvements of Denmark's development co-operation"
- Support for the capacity in developing countries to produce and administer knowledge is "a crucial element in the overall endeavour to build up capacity in developing countries and to strengthen their ability to control their own development"
- Support given for Danish and international research "should contribute to the main development policy objective of poverty reduction" (p. 103).

The perspective underlying these expectations is that research must primarily contribute to solve problems in the developing countries and that Danida's contributions to support research must ultimately be justified in these terms.

While the statements above clearly indicate that Danida is prepared to put more pressure on the research community to assist in development efforts, we must keep in mind that development research should also be discussed in the context of research policy. The discussion of development research in the Danish National Research Strategy unfortu-

nately does not go beyond Danida's role in supporting it and has little to say about development research in the national research landscape.

The review team would therefore suggest that irrespective of the level of ambition and the options for the future chosen, there is a need for clarification and articulation of:

- A national strategy for Danish development research
- Danida's role in supporting development research in terms of
 - contributions to the international body of knowledge
 - contributions to establish increased capacity for research in developing countries
- Danida's need for research and development services in the exercise of its mandate.

This report will not attempt to provide an exhaustive list of issues that must be considered in drawing up a policy statement on what Danida would want to achieve in terms of its support to development research. It will, however, point to some of the main areas that have been discussed at various points in the report and, that in the view of the review team, merit further attention.

A policy statement needs to clarify the extent of Danida's obligations to support the national research effort. Danida depends in various ways on a national resource base in terms of skilled and experienced researchers, active research institutions, on-going research and training programmes within the general field of development studies. Many will claim that an ambitious Danish development agenda, which includes i.a. a continued active engagement on different international and multilateral arenas, reinforces the need for such ambitions to be supported by a strong research community. But Danida is not the only user of this resource base and has not been able to fashion it entirely for its own purposes, even if Danida provides the bulk of funds in this field.

Development research, as it is discussed in this report, may be seen as covering a gradient between one pole clearly within the domain of development policy and another pole equally clearly within the domain of national research policy. It may be necessary to determine how far along this gradient Danida's responsibilities extend as well as what Danida might justifiably expect to receive in return, i.e. its "drawing rights". One view being articulated in two of the review reports commissioned as part of this study (social sciences, agriculture and natural resources), is that funding for development research from Danida should be directed to supporting development processes; and that efforts should be made by Danida to assure that a significant portion of the research funded by development assistance funds is focused on helping Danida make its overall effort more efficient with greater impact on poor people.

However, this must somehow be balanced with the wider concerns expressed above as well as in Chapter 1, that the legitimacy and importance of development-related research – and the educational activities that accompany such research – do not simply derive from their role in development co-operation; and that we also need research which may identify new problems and ask questions not yet thought of by policy makers. In view of the fact that Danida funds a major share of development research in Denmark, it may be advisable not to put too narrow restrictions on the problems and themes to be addressed, at least not for all funds channelled through RUF.

The main structures and central policy instruments of Danish research policy are currently undergoing review and this exercise may also offer a suitable occasion for

clarification of this important issue. Some of the recently introduced policy instruments in Danish research policy, in particular the university performance contracts, are likely to remain and to become increasingly popular in research management. The ambiguities that continue to characterise the relationship between Danida and the Danish research community may be an argument in favour of aligning Danida practices with the national research policy. Performance contracts have been designed to handle a similar set of ambiguities pertaining to the position of the universities. The introduction of formal performance contracts is, therefore, an issue Danida needs to examine, particularly for institutions which currently receive core grants.

Danida also needs to clarify policy issues concerning those aspects of development research that clearly fall within Danida's brief of managing co-operation with developing countries and international organisations. Danida's support to the IARCs, for instance, has earlier been linked to Danida's policy of "active multilateralism", which in turn presupposes a capacity for monitoring the research output and the choice of direction at the IARCs on the one side, and the presence of clear statements on Danish priorities and outlook on the other. The research policies of the IARCs are at present not seen as very controversial, but this has not always been so (e.g. the social sciences have not fared particularly well), and in the future the situation could easily change.

ENRECA is a successful programme in its own right, as pointed out by the recently completed evaluation. The evaluation proposes a number of suggestions that require a policy response, e.g. in terms of the scale of the programme, its relationship to other parts of Danida operations and its position in Danida country programming strategies. Although there are restrictions in the present format of the ENRECA programme relating to capacity, scope and the academic interest it engenders, a possible policy goal of promoting research co-operation and the research sector as such would prepare the ground for a much more determined effort. Promoting research and higher education as a sector in its own right would of course require a set of new policy instruments, in addition to those available under ENRECA.

A research policy for Danida must also consider Danida's own needs for research and development services in the context of planning, programming and implementing development co-operation projects. These needs must preferably be seen in relation to other components of Danida research policy, without necessarily tapping into existing research funds for meeting them. Since Denmark is well endowed with consultancy companies, an important task will also be to assess how research may deliver something else and meet other knowledge needs. Furthermore, there seems at present to be a number of research efforts planned and organised in isolation from each other, sometimes working in conjunction and sometimes at cross purposes with other ventures. Some departments work closely and well with research institutions, while the opposite is the case in other departments. A lot seems to depend on individual officers, and with the high rates of staff turn-over found in many departments in Danida, the need for clear policies and procedures seems paramount.

Capacity for Research Management

A major point that inevitably will arise from any policy statement departing from what the situation is today, will be the need in Danida to increase the capacity for research management. The review team sees the need for additional capacity in terms of:

- Increased need for research policy formulation and strategic planning
- Increased responsibility for negotiation and monitoring of performance contracts (if they are introduced)
- Increased responsibility for policy dialogue and monitoring of international research support
- Increased management and co-ordination of research in conjunction with country programming exercises
- Increased efforts to formulate, facilitate and co-ordinate Danida internal research needs.

The issue of additional capacity should not be seen as an issue of staffing levels only, but equally importantly as a matter of where responsibilities for research are placed within Danida's organisational structure. In view of the pronounced need for improved co-ordination of the considerable amounts of research funding already available at various points in the Danida structure, this is an important issue. It may, in fact, be difficult to see much change in Danida's relationship to research unless capacity is enhanced. There would seem to be different options for effecting change, though, from considering the establishment of a proper R&D unit, closely integrated with the more operational parts of Danida, to fostering closer links between the current Research Department and TSA. The main point is this: For Danida to be a truly "knowledge-driven" organisation – constantly engaged with current findings and debates on development issues – research-based knowledge must be systematically dealt with in the day-to-day operations of the Ministry.

Option A

The first option, in the opinion of the review team, is for Danida to maintain the present basic structure of the four research programmes, but to actively follow up on a number of suggestions that have been made within several of them, in connection with past evaluations or elsewhere. But even this minimum option must be based on a reformulation of research policy and increased capacity for research management in Danida.

We cannot provide exhaustive lists of all issues that must be considered even in this minimum option, but some of the main points that should be considered under each of the four programme areas are:

- a) RUF is probably the most valuable facility available to the Danish research community with an interest in development issues. RUF is for all practical purposes a research council and has adopted many of the management tools of a research council. However, in the Danish context RUF is exceptionally flexible in the range of research projects it will consider. RUF accepts proposals for individual, researcher-initiated research projects and has so far only reserved a small part (less than 25 per cent) of its overall budget for programme research. This is a bit unusual in the Danish context, where research funds are increasingly marshalled into programmes, either by the funding ministry, or by the research council in question. RUF seems to have resisted this to some extent, and this may be a source of strength (particularly in the research community) as well as a cause of problems in RUF's relationship with Danida.

Option A would imply a more active engagement by Danida towards RUF, particularly with regard to:

- Marshalling RUF support for strategic research programmes (as a larger share of the RUF allocation) where Danida sees a long-term need to build Danish capacity. *Strategic research* lies somewhere in between basic and applied research, being basic in structure (i.e. aiming at expansion of basic knowledge and understanding), but deriving its motivation and perspective from the potential use of its findings. This may involve thematic programmes or area studies. There should be particular concern for ways of securing research preparedness in the Danish system for emergent development problems. It is a moot point whether development practitioners or researchers are best placed to detect such issues; the reviews seem to suggest, however, that the research community in Denmark has not always been able to mobilise adequate responses to some key challenges to research. However, the RUF paper submitted to the Commission indicates a readiness to strengthen research in areas of direct significance to Danida's *Partnership 2000* strategy, and to concentrate resources on Danish research strongholds by using programme or research centre funding as important instruments. This should be supported.
 - Promote links and obtain better synergies with the other government research councils within specific programme areas. New proposals and initiatives like research professorships, the proposed new research centres (in international health and for water resources management) etc. should be closely aligned with the relevant research councils and the national Danish research effort. Research networks and the 'centre without walls' model also deserve active support.
 - Increase transparency and insight into a structure that in Denmark often is accused of being a 'closed shop'. RUF is probably no more closed than other research councils, but should make an effort to overcome the 'cosiness factor' discussed above by regularly arranging e.g. thematic conferences and national research priority-setting exercises as well as by introducing proper peer review procedures.
- b) Within the ENRECA programme, a number of recommendations have been made in the context of the recently concluded evaluation. The most important of these would seem to involve:
- Better co-ordination and linkage between ENRECA projects to activities funded by RUF (particularly Ph.D. fellowships) or to Danida-funded sector programmes in the host country.
 - Increased attention to institutional assessments of the host research institutions to promote improved strategic selection of projects and sustainability. If ENRECA projects are to depend on the active involvement of Danish researchers, the ENRECA projects must also be attractive in the context of Danish research careers. But there are needs for investment and intervention in a number of academic fields at developing country institutions where the ENRECA twinning model may not be useful.
 - Increased involvement of developing country researchers at the programme level.
 - Increased concern for research opportunities for developing country scientists after Ph.D. training or after the ENRECA project ends. The 'brain drain' is a well-known problem in academic co-operation programmes, but an equally significant problem involves gross under-utilisation of highly skilled human resources and research talent due to lacking research opportunities (a problem popularly referred to as 'brains down the drain'). Options include opening up RUF for research proposals from developing countries (with or without the participation of Danish colleagues), the creation of research endowment funds managed by regional research organisations, or the creation of a second generation of ENRECA projects with an emphasis on South-South collaboration.

- c) Under the first option for future management of research support programmes, Danida would still maintain a funding responsibility for the four research institutes under its purview. Danida might consider to align management of this programme with national research policy in terms of greater emphasis on public oversight of activities funded from the public purse, including research goals and priorities at research institutions. The preferred means in the national research policy of achieving these control functions involve *performance contracts*. The performance contract format may require a re-negotiation of mandates and basic agreements to allow Danida greater influence in setting research agendas and research priorities, e.g. by reserving parts of the annual budget grants for a particular ‘negotiated projects’ portfolio or for longer-term programme funding.
- d) The bulk of Danida’s support to international research goes to the IARCs and Danida is currently quite content that IARC policies in many fields are congruent with Danida views and policies on agricultural development. Danida maintains its policy of “active multilateralism”, however, and must find ways of promoting Danida views also in the future. Danida may decide to pursue an even more active dialogue with the IARCs, with a view to:
- Promote better contacts and increased interaction between IARCs and Danish research institutions
 - Promote closer contacts between the IARCs and NARs, in the context of Danida-funded agriculture sector development plans in Danida programme countries
 - Increased use of earmarked funds or a competitive bidding process (for a limited share of the Danish funds set aside for this purpose) between IARCs to promote particular Danish policy initiatives or to cover specific research needs identified by Danida.

The main tenor of the proposals made under this first option basically involves an alignment of Danida research policy with national research policy in terms of

- allowing the Danish research community to carry out high-quality research on its own terms, with the academic autonomy necessary to ensure high-quality research output;
- but also strengthening the orientation of research towards relevance for Danida (through i.a. strategic research programmes, improved synergies and co-ordination) and ensuring that the researchers communicate to the public and/or the responsible funding agency the goals and priorities governing the research in question.

In the context of Danida, the issue is also one of resolving the many ambiguities that characterise the relationship between Danida and the research community. The aim is to allow Danida to articulate more clearly what it expects from the research community and to put in place a structure that will allow the research community to contribute more constructively to Danida’s overall policy aims of reducing poverty.

Option B

The second option for future Danida management of development research aims to contribute to the same policy goals as the first option, in terms of resolving ambiguities and making more explicit what Danida wants from the research community. In addition to retaining the main elements proposed under option A, this approach would be more radical, and the changes implied more far-reaching in terms of structural changes.

- a) This second option would imply that Danida should fully acknowledge that RUF is basically a structure for funding Danish research contributions to the international body of knowledge on developing countries and the many aspects of the development process. Danida represents an important sector of Danish public life with a keen interest that this body of knowledge should become more extensive, more refined and precise. However, there are many other sectors of public life in Denmark that share this interest and Denmark as a nation should take part in the efforts involved in contributing to this international public good. As with other public goods, Danida cannot lay claim to it and if it wants to make use of it in the exercise of its mandate, it must make other arrangements. The fact that RUF is funded from the Danida budget is primarily a technicality, but one that allows Danida to champion research in a field where Danida holds a public mandate. The main point, however, would be that Danida should recognise RUF as a research council that primarily belongs in the domain of Danish research policy. The fact that RUF is funding research of vital interest to Danida should not deter Danida from seeing RUF as marginal to the development assistance effort that is Danida's primary business.

A major element of an overhaul of the structures for Danida's research management would thus involve the transfer of RUF to the research council structure. This is the organisational arrangement adopted in e.g. the Netherlands and Norway, whereas Sida/SAREC has its own development research council but with a totally different staffing level than Danida/RUF. If a transfer be made, RUF may not be maintained as a separate research council but would in any case have to become closely involved with the other research councils, perhaps as an interagency programme (which is not uncommon in Denmark) with a mandate to promote research about developing countries and development issues in Danish research policy and funding. The main arguments for moving RUF out of Danida would be

- that Danida has little influence over what RUF actually does, but could still influence the research agenda through e.g. allocating funds to strategic research or, like in Sweden, special "areas of invitation" defined by Danida;
- that RUF sees the research community rather than the development practitioners as its primary constituency;
- that a transfer might bring about significant improvements in terms of staffing level as well as new possibilities to co-operate with and influence the research agenda in the "regular" research councils (synergies, expanded funding); and
- that, while Danida in general is dissatisfied with the utility of the research output in terms of its own needs, RUF does in fact promote research of high quality. RUF is not an R&D department for Danida and the utility of its research output cannot be judged in terms of its contributions to operational issues in Danida.

Arguments against moving RUF out of Danida would be

- that Danida's demand for knowledge may increasingly go somewhere else (i.e. to the consultancy firms);
- that most other ministries have their own research system (why not also Danida?); and
- that there may be sound arguments in favour of RUF becoming closer to development policy than today (see Option A).

- b) The second major structural change that should be considered under the more radical option involves the upgrading of development assistance efforts within research and higher education. The importance of this sector has long been recognised and although the ENRECA programme is valued in its own right, it is generally accepted that ENRECA is inadequate in terms of making a large impact in a sector that has been grossly neglected for many years. The knowledge divide between rich and poor nations is only now being put on the agenda and is an issue that is likely to grow in importance over the years to come. Investments in this sector take a long time to mature so it is necessary to start soon.

Development assistance to research and higher education is still comparatively rare and there are few ready-made solutions on how to approach the problem. But Danida has gained a wealth of experience in the ENRECA programme and has established credentials as a development agency that is genuinely interested in the sector. Still, there are numerous lessons to be learnt from the experiences of development agencies in like-minded countries. The Dutch and Swedish strategies and approaches in this field contrast starkly with the World Bank view on research and knowledge as a tradable commodity. The paper by Arnold and Bell which was commissioned as part of this review, states i.a. that the comparatively “hands off”, project-based funding policies so far pursued by many donors in the area of research for development should be replaced by closer engagement with the innovation system as a whole in developing countries, in the private sector as well as in public institutions.

Danida has a clear policy position with regard to the importance of supporting a viable research sector in its partner countries. The next step would seem to involve a more active promotion of this view in country programming exercises. Given the many different ways research projects are planned, funded and executed under various Danida headings, it is important to put all Danida-funded research in the respective programme countries into some kind of coherent framework, with clear reference to national research strategies (where these are available) and national development plans. Improved co-ordination of the Danish research effort, which inevitably takes place in collaboration with national researchers and national research institutions, will quickly reveal the needs, the prospects and the frameworks for support to the sector.

- c) The third consideration pertains to Danida’s relationship to the four Danish research centres it supports. There are different historical reasons why they all have ended up under the Danida umbrella, but there are major differences among them. Thus the Centre for Development Research has a broad mandate and a tradition that allows it, to a considerable extent, to cultivate its own research interests, much in the mould of a traditional university department; whereas the Danida Forest Seed Centre runs a programme of very close co-operation with technical departments in Danida. Hence, some of the centres are heavily involved in the technical aspects of Danida co-operation programmes, in terms of providing research that is seen as immediately and operationally useful to Danida, or in terms of promoting specific research capacity in developing countries. Others are seen as less useful to Danida in these terms.

It is difficult to propose policy initiatives that will cover all four centres equally well. However, we would like to point out that at the moment, the Danish Government Institute of Seed Pathology for Developing Countries (DGISP) is closely affiliated to KVL; the health research review proposes to consider DBL’s position in relation to the proposed establishment of a new Institute of International Health for Development, a

move that might draw DBL closer to the University of Copenhagen; and over the years there have been various suggestions regarding the status of CDR, particularly its possible formal affiliation to the University of Copenhagen or RUC. The proposal that sector research institutes should play a greater role in post-graduate training, e.g. as partners in Ph.D. training centres/research schools, together with universities may also be a factor to consider in this regard.

Option A implies that Danida should more actively use performance contracts to structure its relationship with the centres. Option B would imply a more differentiated approach, yet one that attempts to further align Danida policies with national research policy. While there may be scope for bringing the three 'technical' institutes closer to university structures (with the possible exception of the Danida Forest Seed Centre), the status of CDR would seem to be different. According to the Danida document *Danish Development Assistance in the Field of Research* (October 1999), CDR "should, to all intents and purposes, be regarded as a sector research institute answerable to the Danish Ministry of Foreign Affairs" (p. 9). However, the same document goes on to state that this is not the case, since CDR is not covered by the laws governing such institutes. In this sense, CDR's mandate in fact resembles the more academically oriented mandates of specialised research institutes under the Ministry of Research, such as e.g. COPRI. CDR is itself aware of this tension and has, in its written submission to the Commission, proposed possible changes in its mandate that, in effect, would place it closer to Danida.

It follows from our deliberations in Chapter 4 that the expectations the world has of CDR need to be less ambiguous yet perhaps also more realistic than is generally the case today. There would seem to be two main options. CDR could either become a regular sector research institute under Danida, under the terms of the appropriate legislation, or maintain its more open, academic mandate as a specialised research institute, perhaps even under the Ministry of Research (like e.g. COPRI). Within the first (sub)-option, it would be necessary to strike out a course to clearly indicate the main difference between CDR and the universities. This must have something to do with CDR being primarily an applied, policy-oriented and multi-disciplinary research institution involved in both basic, long-term research and applied, often short-term research and consultancies. However, it has a particular obligation to make interconnections and create synergies between the two. Thus in return for its contribution, Danida might reasonably expect

- A strongly applied focus in CDR's research, reflecting the particular niche and focus of Danida research funding
- A research range that is not determined solely by current agency interest, but is at least justified in terms of the evolving (and future) development agenda, and which offers support to a reasonable range of priority Danida interests
- A really strong commitment to dissemination and outreach
- Strong links to the wider research community, including in the consultancy sector and NGOs, in Denmark and overseas.

Under this (sub)-option, Danida would continue to provide core funding to CDR, although there may be arguments in favour of reducing the share of revenue provided by the core grant (e.g. by encouraging expansion). The second (sub)-option, however, would imply that Danida manage its relationship to CDR primarily through programme funding. Such funding may be designed for a variety of purposes and in some cases it may be desirable to make it available in open competition with other research

environments. In addition, however, there are a number of public service functions, particularly documentation and library services, that are of vital importance to the Danish research community and other users and that must be protected. While recognising that there may be different compromises between the two (sub)-options, it seems useful to spell out some of the implications of adopting one or the other.

- d) Funds provided for international programmes are the least controversial in this radical option, and the considerations proposed under the first option could be repeated here.

This second option basically attempts to shed responsibilities that in principle are the responsibility of other parts of Danish society, and focus Danida's involvement in development research more sharply on tasks that follow from Danida's mandate of development co-operation. This basically concerns Danish co-operation with international bodies involved in various aspects of the situation of the developing world, and with a number of Danida programme countries. The main task in the country programmes is to provide effective interventions in selected sectors. There is certainly a great need for research support in the design and implementation of sector programmes (including interventions to assist the research and higher education sector), and a need for imaginative and productive use of the research community, both in Denmark and abroad including developing countries. It is suggested that Danida can best meet such needs through an active research department or some other organisational structure that will be able to mediate between the R&D needs of Danida and the Danish research community. To the extent possible, Danida should avoid long-term obligations for structures and programmes that appear marginal to its main mandate.

Neither of the two options are about saving money. The argument that Danida should not be responsible for RUF, for example, does not imply that RUF does not need funds. But funds should be distributed under other headings. The purpose of both options is to clarify policies and structures into a more coherent, productive and hopefully less-conflict-ridden structure for Danida's future management of development research.

ANNEX 1

'Cigar Boxes' in the Danish Research Agency

Inter-council research programmes in the Danish Research Agency, 1999

	Managed by Ag-Agriculture, He-Health sciences, Hum-Humanities, Nat-Natural sciences, Tech-Technology, Soc-Social sciences	Duration	Total budget allocation for the period (mill. DKK)
Major Programmes			
BIOTEK (Biotechnology)	Ag, Nat, He, Tech	Yearly	74,7
FØTEK 2 (Food technology)	Ag, Nat, He, Tech	Yearly	6,7
Inter-council programmes			
Man, landscapes & biodiversity	Nat, Ag, Soc, Hum	1995-1999	40,0
Biological materials & products	Nat, Ag, Tech	1995-1999	44,0
Gerontology	He, Soc, Hum	1995-1999	70,0
Arctic/Antarctic research	All six	1995-1999	78,0
Research on research	Nat, He, Soc, Hum	1997-2001	10,0
Gender barriers in education and research	Nat, He, Soc, Hum	1996-2000	10,0
Informatics	Nat, Ag, Tech	1996-1999	62,0
Materials technology	Nat, Tech, Min of Trade and Industry	1996-1999	76,5
Gender research co-ordinator	Nat, He, Soc, Hum Tech	1996-2000	4,0
Other earmarked programmes			
Terrestrial observatory	Nat, Ag, Tech, Min of Research	1996-2000	32,0
European Space Agency	Ag, Nat, Tech, He,	1997-2002	75,0
St.Petersburg initiative	Nat, Tech, Ag, Min of Research	1997-1999	7,7
Research package '96			
Social welfare	All six	1996-2001	153,0
Research package '97			
THOR	All six	1997-2002	82,0
Chemistry	Nat, Tech	1997-2001	32,0
Research centres and instruments	All six, Min of Trade and Industry	1997-2003	7,0
Multimedia	Nat, Soc, Hum, Tech, Min of Trade and Industry	1997-2001	47,0

	Managed by Ag-Agriculture, He-Health sciences, Hum-Humanities, Nat-Natural sciences, Tech-Technology, Soc-Social sciences	Duration	Total budget allocation for the period (mill. DKK)
Inter-council programmes from Research package '98 transferred to Danish Research Agency			
FREJA	Progr. committee	1998-2001	78,0
Leadership and management	Progr. committee	1998-2002	37,0
R&D in Danish design	Progr. committee	1998-2002	15,0
Yeasts and fungi	Progr. committee	1998-2002	13,5
Biotechnology	Progr. committee	2000-2002	55,0
Instrumentation for biotechnology	Progr. committee	2000-2002	150,0
Co-operation between sector research, universities and business	Progr. committee	1999-2003	71,1
The elderly and IT	Progr. committee	1999-2003	33,0
Follow-up of interdisciplinary strategic plans			
FØTEK 3 (Food technology)	Progr. committee	1998-2001	60,0
Health promotion	Progr. committee	1998-2003	120,0
Agrarian landscapes	Progr. committee	1998-2002	35,0
North Atlantic research	Progr. committee	1998-2001	35,0
Information technology	Progr. committee	1998-2003	60,0
Small satellites	Nat, Ag, Tech	1998-2001	50,0
Expensive equipment	Progr. committee	1999-2001	45,0
Research package '99			
Follow-up on fisheries research	Ag, Nat, Soc, Tech	1999-2003	32,0
Meeting of cultures	Hum, Soc	2000-2004	18,0
Post.doc. programme on Innovation	Progr. committee	2000-2003	49,5
Logistics and heavy goods transport	Progr. committee	2000-2003	49,5
Migration research	Soc, Hum	2000-2004	20,0
Research package 2000			
Competitiveness of Danish research	All six	2000-2003	97,0
Regional collaborations on health research	He	2000-2003	40,0
New centre contracts	All six, Min of Trade and Industry	2000-2003	24,0
Other single-council programmes			
Danish Research Centre for the Humanities	Hum	200-2004	48,0
Research training on integration, production and social welfare	Soc	1999-2004	28,0
Centre for industrial production	Tech	1998-2003	37,5
COM-centre	Tech	1999-2002	
Materials (polymers) research	Tech	1999-2003	52,0
Leadership and Management 2	Soc	1999-2001	21,4

ANNEX 2

Danida Research funding Outside Department for Development Research (St.S4)

Research funded outside Danida research programme ^{24, 25}

<i>In italics, projects with significant research components</i>	Total grant, including research, DKK mill.	Estimated Research Grants DKK mill.
Regional, Africa		
<i>Biological control of water hyacinth</i>	19,8	
Tanzania		
Rock phosphate fertilizer trials		5,8
Research and Education for Democracy		18,0
<i>Biodiversity in Udzungwa Hills ecosystem</i>	19,9	
<i>Sustainable management of Ramsar wetlands</i>	31,5	
<i>Village-based forestry management in Lindi</i>	19,9	
Malawi		
<i>Resource management plan, Lake Chilwa</i>	11,8	
<i>Bilharziasis control, Mangochi district</i>	5,0	
Mozambique		
Agriculture		
Education		
Civil law		
Southern Africa		
Centre for Conflict Resolution		
Defence Management Training		3,0
Regional Research Capacity on Peace and Security		
Women and Law in Southern Africa		
Uganda		
Agriculture		37,3
Eritrea		
Agriculture		30,0

24) Based on a presentation to the Danida Board. Danida TSA department has been asked to supply budget figures wherever possible.

25) The information supplied does not indicate length of implementation period.

<i>In italics, projects with significant research components</i>	Total grant, including research, DKK mill.	Estimated Research Grants DKK mill.
Benin		
Agriculture		22,5
Archaeology		
Burkina Faso		
Agriculture		8,0
Energy		5,0
Regional, Asia		
<i>Resource management in Mekong catchment, Vietnam and Laos (MIFRESTA)</i>	7,7	
Bangladesh		
Flood Control		12,0
Seed pathology		5,0
Cambodia		
<i>Coastal zone management (MIFRESTA)</i>	25,5	
<i>Training in Integrated Pest Management (MIFRESTA)</i>	14,6	
India		
Tuberculosis control		3,5
Leprosy control		3,0
Primary health care		
Environment		1,6
Laos		
<i>National Research Institute for Living Aquatic Resources (MIFRESTA)</i>	13,3	
<i>Management of Nam Et and Phou Loei nature reserves (MIFRESTA)</i>	4,8	
<i>Capacity building in environmental management (MIFRESTA)</i>	18,2	
Bhutan		
Royal Institute of Management		
China		
Gender issues		
Thailand		
Research vessel, research and training		8,0

<i>In italics, projects with significant research components</i>	Total grant, including research, DKK mill.	Estimated Research Grants DKK mill.
Vietnam		
Fisheries Sector Support		
<i>Joint environmental training, Can Tho University & University of Århus (MIFRESTA)</i>	2,5	
<i>Coastal zone management, Hon Mun (MIFRESTA)</i>	6,3	
<i>Pollutants in building materials (MIFRESTA)</i>	10,6	
<i>Biodiversity in U Minh Thuong nature reserve (MIFRESTA)</i>	19,6	
<i>Coastal zone management (mangrove forests) (MIFRESTA)</i>	83,8	
Middle East		
Agriculture, Palestine		6,2
Fisheries, Gaza		0,8
NGO-programme		
Bangladesh TB and leprosy control		
Gaza, Psycho-social empowerment of survivors of human rights violations		
South Africa, Education Policy Unit		
Vietnam, Human Rights Training and Awareness		
Other		
Danish Centre for Human Rights		3,0
Rehabilitation and Research Centre for the Victims of Torture		

ANNEX 3

A Brief Overview of Development Research in Denmark

Most development research in the Danish research system is funded by Danida through RUF. Participation in ENRECA projects also contributes to the Danish research base, but in less obvious ways, since this is primarily a programme intended for other purposes. As pointed out above, there are other sources of funding as well, through the core grants that universities receive from the Ministry of Research, from discretionary funds held by the universities, from private foundations and from international sources. There are also limited possibilities for research funding from some government programmes, the most important of which as far as development studies are concerned is Danced.

Danced, an agency under the Ministry of Environment, was established in 1994, as part of Denmark's environmental assistance to developing countries. It is set up to provide both funds and know-how necessary for the sustainable development of both the poor and the newly industrialised countries. Danced finances research and training projects relating to environmental problems in South Africa, Malaysia and Thailand. It encourages the involvement of Danish institutions, e.g. in twinning arrangements with local research institutions, and provides funds for Danish institutions to strengthen their own capacity for environmental research relating to developing countries.

A survey of development-related research at Danish universities and research institutions will be made available from Danida. Here, only very brief institutional presentations will be offered, to provide an overview. Institutions with direct funding from Danida are not included, as these have been described above.

The 'thumbprint' sketches which follow below are partly based on materials submitted by the institutions in question, partly assembled from other sources of information such as annual reports, internet home pages etc.

University of Copenhagen

The University of Copenhagen is the largest in the country and also one of the most active institutions in terms of development-related research. A programme for North-South relations has been accepted in the framework of its performance contract with the Ministry of Research, allowing the university to spend funds from its core grant on various activities within the university (including student travel grants and a Visiting Scholars scheme) and allocate Ph.D. fellowships (9) to the programme.

The North-South programme is organised into three focus areas:

- Religion and politics
- Globalisation and Marginalisation in Danish Society
- Population Studies

– and four priority research areas:

- Environment and Natural Resources Management in the South
- Health Research in Africa
- Development Economics
- Islam.

The University of Copenhagen operates 12 ENRECA projects with universities in Africa and takes part in the SLUSE (Sustainable Land Use and Natural Resources Management) consortium funded by Danced.

Excellent documentation of North/South research at the University of Copenhagen is available.

University of Aarhus

The University of Aarhus has focused its development-related research and training in tropical biology and marine science. The RUF-initiated research professorship in Environment and Development (limited to five years) has Aarhus as its base and is currently funded from the university's own discretionary research fund. The University of Aarhus has an active research programme in a number of subjects with tropical biology and tropical marine science, including specialised training programmes operated in collaboration with research institutions in Asia. The emphasis in other subjects is within social sciences, with a special interest in political science (Asiatic studies) and economics. The university also has an active Department of Ethnography and Social Anthropology.

The University of Aarhus operates three ENRECA projects (in Africa, Asia and Latin America).

University of Southern Denmark

Development-related research at the University of Southern Denmark is concentrated to Institute of Biology, which has a small group of researchers working on a Scientific Co-operation Programme funded by Danida in Thailand. The other main research effort is with the Centre for Middle East Studies which is mostly concerned with current affairs in the Middle East.

The University of South Denmark takes part in an ENRECA project (together with Statens Serum Institut).

Roskilde University Centre

Roskilde University Centre is home to International Development Studies, which is the main university centre for research and training in development-related social sciences in Denmark. IDS is an interdisciplinary centre offering a range of graduate courses in development studies, including a very active Ph.D. programme that explores political and cultural institutions at various levels and from different disciplinary angles. Particular emphasis is given to gender issues.

Development research activities in Roskilde are organised in three broad research areas

- Globalisation and Institutional Frameworks for Industrial Development
- Livelihood, Culture and Governance in Situations of Instability

- Natural Resources management – political processes and institutional dynamics. Roskilde University Centre takes part in the Danced-funded SLUSE consortium and in two ENRECA projects (both in Africa).

Royal Danish School of Pharmacy

Researchers from the Royal School of Pharmacy are active with natural products chemistry and environmental chemistry. The School takes part in five ENRECA projects (one bilateral and four in co-operation with other Danish institutions).

Technical University of Denmark

Departments at the Technical University of Denmark have an active interest in development issues as these are integrated in the regular activities of the institution. Earlier attempts at organising a Centre for developing countries have been discontinued. Some minor courses raising particular topics relating to technology and development are still offered, but this can hardly be characterised as any major effort.

Individual researchers at the departments of Buildings and Energy, Hydrodynamics and Water Resources and Telecommunication have research interest in developing countries and operate one ENRECA project (in Ghana). Furthermore, the Technical University takes part in the Danced-funded DUCED I & UA programme (also known as the 'Brown Consortium' as oppose to the 'Green Consortium' of SLUSE) where it offers an English-language degree course in environmental engineering.

Copenhagen Business School

The Copenhagen Business School houses an Asian Research Centre with staff and Visiting Scholars involved in research in topics relating to business and finance in Asia. China and Eastern Asia is a clear regional point of emphasis, but with some projects concentrating on e.g. Southern Africa. Funding is provided by RUF, Danida and international sources.

CBS also offers a graduate programme in 'Business and Development Studies'. RUF provides funding for only 2 out of 8 Ph.D. projects at CBS.

Aalborg University

The Aalborg University is the youngest of the universities in Denmark. It has established a range of activities of relevance to development studies, involving disciplines from natural and technical sciences through social sciences and humanities, including a number of cross-disciplinary research networks and programmes. The most relevant of these is the interdisciplinary *Research Centre on Development and International Relations* where research activities are organised in the following six clusters:

- Conflict, Regionalism and Uneven Development
- Globalisation, Inequality and Human Security
- Gender, Identity Politics and Nationalism
- Science, Technology and Development
- Environmental Politics and Social Movements
- Economic Policy-making and the Changing Role of Social Welfare in a Global-Local Context.

The Research centre offers Master's and Diploma courses (with approximately half of 150 graduate students from developing countries) and houses 9 Ph.D. students.

- *The Danish Research Unit for Industrial Dynamics (DRUID)* is a 'research centre without walls' funded by the Social Science Research Council which has adopted a programme on Industrial Dynamics and Sustainable Development as a main research theme for the next five-year period. It is expected that DRUID will work closely with an ENRECA project involving several Central American universities in cross-fertilising research and joint efforts.

Other research centres at Aalborg with an involvement in development studies include:

- *Centre for International Studies*, which runs a project on 'Business in Development'. This centre also runs an ENRECA project in Ghana. The Centre is host to the School for Postgraduate Interdisciplinary Research on Interculturalism and Transnationality as well as a 'centre without walls' concerned with migration studies
- *Centre for IT Innovation* with 'Information and Communication Technology in Developing Countries' as a focus area
- *Centre for Philosophy and Sciences Studies* with a project on philosophy and cross-cultural communication
- *China Centre*, which is recently established.

Aalborg University takes part in the Danced-funded DUCED I &UA consortium and has a particular responsibility for capacity development and research on industry and urban areas.

Royal Veterinary and Agricultural University

The Royal Veterinary and Agricultural University (KVL) hosts a wide range of activities related to developing countries within the fields of research, teaching and project work. The key research areas at KVL are:

- Sustainable use of natural resources and the environment
- Animal husbandry and health
- Biological control of plant diseases and pests
- Food safety and economy.

Education and Research

The core of educational activities in this field is the MSc programme "Land Use in Developing Countries" and the programme "Sustainable Land Use and Natural Resource Management" (SLUSE) – an interdisciplinary co-operation between Roskilde University, the University of Copenhagen and KVL funded by the Danish Ministry of Environment and Energy.

In 1999 students from e.g. Tanzania, Eritrea, Indonesia and Palestine participated in Master's and Ph.D. programmes funded by among others the Danish Development Agency (Danida) and the Asian Development Bank.

In 2000, researchers from KVL were involved in 19 of Danida's research development programmes (ENRECA). Striving for a closer link between research activities and the Danida sector programmes KVL has launched a new regional project on animal husbandry in Malawi, Zimbabwe, Tanzania and Namibia.

Network on Poultry

KVL participates in a number of networks, including the Danish Network for Smallholder Poultry Development. The aim of this network is to improve the traditional poultry farming in developing countries. In 1999 the network set up a secretariat with a staff of three at KVL. The network is currently developing a Master's programme in relation to the Danida sector programme in Bangladesh. In the Nordic Forestry, Veterinary and Agricultural University (NOVA), KVL is involved in developing a master programme "Tropical Animal Health and Food Safety".

The Royal Veterinary and Agricultural University has a large number of departments involved in development research:

- Department of Dairy and Food Science
- Department of Animal Science and Animal Health
- Department of Agricultural Science
- Department of Economics and Natural Resources
- Department of Plant Biology
- Department of Veterinary Microbiology
- Department of Ecology
- Department for Anatomy and Physiology
- Chemistry Department
- Centre for Experimental Parasitology
- Research Department of Human Nutrition
- Danish Government Institute of Seed Pathology for Developing Countries.

Danish University of Education

International Programme for Education and Development (IPED) is a newly established department under the Danish University of Education which carries out research, training and project and consultant work within the field of education and development.

The department is in the making and presently working on new research profiles and project programmes. However, the staff in question has been involved in development research and training since the early 1990's and IPED represents a continuation of former work.

A key feature of IPED is a very close linkage between research and project work. IPED staff do research, teach MA. and Ph.D. courses for third world students and professionals and are also actively involved in development projects, primarily in Mongolia, Nepal and Eritrea.

The objectives of IPED are:

- To carry out research in the field of education and development
- To develop training programmes for students from Third World countries.
- To develop post graduate training for professionals from Third World countries,
- To carry out consultancy jobs on projects and programmes in developing countries.

The strategy of IPED is built on four pillars:

- **Research in Education**
Applied or strategic research and research based development work aimed at

producing basic knowledge needed in order to develop different areas of school and education systems.

- **Capacity Building**
Human resource development and national capacity building within different areas of school and education systems and planning, including M.Ed., M.Sc.Ed. and Ph.d. programmes.
- **Process Planning**
Seeing development as a complex, interactive and dynamical process where general objectives has to be adjusted in accordance with the experience and insights generated through the implementation of projects and programme.
- **Institutional Linkages**
Planning, implementation, monitoring and evaluation has to be a common project for institutions in both donor and receiver country. Knowledge and experiences has to be institutionalised.

Project and Consultancy Work

The main part of IPEDs activities since 1992 has taken the form of large scale consultancies within education reforms and school development in Mongolia, Nepal and Eritrea.

Danish Institute of Agricultural Sciences

The Danish Institute of Agricultural Sciences (DIAS) is a sector research institution under the Ministry of Food, Agriculture and Fisheries. With its approximately 1,125 employees DIAS is one of the largest sector research institutions in Denmark. It carries out at wide range of development related activities, within research, project and consultancy work.

DIAS has an International Unit with the overall responsibility for the co-ordination of activities undertaken in developing countries and Eastern and Central Europe and a Research Unit for Decision Support and Development Aid. Researchers from a number of departments have experience with development-related research, funded by RUF and other sources in Danida, e.g. in connection with agriculture sector programmes.

DIAS participates in an ENRECA project on animal production in Zimbabwe and another one on integrated pest management (IPM) together with universities from several African countries. The Institute has a twinning agreement with the Eritrean Ministry of Agriculture with particular emphasis on IPM strategies in the national agricultural sector programme.

Danish Institute of Agricultural and Fisheries Economics

This is a sector research institute under the Ministry of Food, Agriculture and Fishery. It employs around sixty staff members, most of them researchers. It has no specific research area on development research and no ENRECA projects, but three Ph.D. research projects within fisheries economics.

National Environmental Research Institute

The National Environmental Research Institute (NERI) is a sector research institute in the Ministry of Environment and Energy. NERI offers professional advice, monitoring services for themes relating to nature and environment, strategic research for political decisions about environmental issues.

The research activities of NERI is organised into eleven research departments, situated at three different locations in Denmark.

NERI has organised research on air pollution in South Africa (Danced funding) and in Vietnam (UNDP funding) and with the Asian Institute of Technology in Bangkok. NERI scientists co-operate with the University of Aarhus in marine research in East Asia and are responsible for a project on people and forests in Thailand. Minor projects have involved a study of the effect of wind turbines on migratory birds in Egypt and nutrient loads in small rivers in Equador. NERI is preparing an ENRECA project in Tanzania with an Initiative Pool Grant from Danida.

Danish Pest Infestation Laboratory

The research fields of DPIL are focused on insect and mammal pests on domestic animals, in stocks, buildings and used materials. The Laboratory is owned by the Ministry of Food, Agriculture and Fisheries.

DPIL participates in a large international project to study rodent pests in eastern Africa with the aim of arriving at ecologically based management and control strategies. DPIL hosts several graduate students doing dissertation research on various African rodents and takes part in the ENRECA project on Integrated Pest Management.

Danish Institute for Fisheries Research

Danish Institute for Fisheries Research (DIFRES) is a sector research institute under the Ministry of Food, Agriculture and Fisheries. It carries out research, investigations and provides advice concerning sustainable exploitation of live marine and fresh water resources.

The Institute has carried out research on gondol fisheries and aquaculture in Indonesia and takes part in the marine research programme that Danida has financed in Thailand. It has also done a research project on the microbiology of fermented fish products. DIFRES takes part in the preparation of an ENRECA project in Vietnam, together with KVL.

DHI Water & Environment

DHI Water & Environment is an independent, self-governing research and consultancy organisation affiliated to the Danish Academy of Technical Sciences. The Institute has a staff of approximately 460, the majority of whom are professional engineers and scientists with post-graduate qualifications and several years of consultancy and R&D experience. Projects have been conducted in more than 140 countries.

Examples of project activities include:

- Conference on Coastal and Port Engineering in Development Countries (1983-2003)
- Shore Protection Authority, Coastal Research Institute and Hydraulic Research Institute, Egypt (1993 – ongoing)
- Surface Water Modelling Centre, Bangladesh (1990-2000)
- Twinning agreement with Asian Institute of Technology (2000-2004) with focus on:
 - Integrated watershed management (lead Royal Veterinary and Agricultural University)
 - Integrated tropical coastal zone management (lead Aarhus University)
 - Modelling tools for environment and resource management.

Annual training courses in:

- Integrated Environment and Water Management (since 1997)
- Integrated Coastal Zone Management (since 2000)
- Shoreline Management (since 2000).

Examples of development related research:

- Technology transfer to developing countries
- Real-time control of irrigation systems, Sri Lanka
- Effects of land use changes on runoff, Zimbabwe
- Remote sensing data for catchment water balances, Senegal
- Cyclone, generated coastal flooding, Bangladesh
- Agrowater, Council for Technological Services.

Several of these have been funded by RUF. Examples of current research funded by RUF include:

- Flood forecasting in coastal areas, Bangladesh
- Effects of land use on water resources, Zimbabwe.

Statens Serum Institut

Statens Serum Institute is the largest Danish public research institution within health and has a particular focus on infectious diseases research. The institute has app. 1200 employees. Many research activities have an international scope and at least five research areas have a special relevance for development research:

- HIV Vaccine research at SSI
- Tuberculosis Immunology
- Acute respiratory tract infections (ARI) and sexually transmitted diseases (STDs):
 - 1) Development of latex kit for typing of pneumococci
 - 2) Prevalence of *Mycoplasma genitalium* in urine specimens from South African miners
 - 3) Seroepidemiological studies on the prevalence of gonorrhoea among women in Mozambique
 - 4) Surveillance of antimicrobial resistance in *Neisseria gonorrhoeae* strains isolated from female sex workers in North Sumatra
 - 5) Thailand: Quality assessment of local serological tests for detection of *Chlamydia pneumoniae* antibodies.
- Malaria research. SSI has a long tradition for collaborative malaria studies. Vaccine research is one of the priorities, but the activities include also epidemiological studies and research training.
- Department of Epidemiology Research represents one of the largest epidemiological research milieus in Denmark. The Department is involved in collaborative research with countries in Africa and Asia, and the research station in Guinea Bissau has been affiliated with the Department from the beginning. The studies in Guinea Bissau started in 1978 with focus on the epidemiology of measles and determinants of severe measles. Later studies addressed vaccine strategies and non-specific effects of vaccines. In addition a number of other issues have been investigated including diarrhoeal diseases research and retroviral infections.

In total, more than 300 papers in peer reviewed journals have been published, and an extensive research training program is ongoing. Current interests include the effect of vaccinations (non-specific effects), HIV and other retroviral infections, tuberculosis epidemiology, maternal health, cholera and rotavirus. Also the impact of war and crises on health and society is addressed in a multidisciplinary programme.

Statens Serum Institute co-operates with several institutions in two ENRECA projects (in Egypt and in Guinea Bissau). It is also involved in the preparation (with an Initiative Pool Grant) in a project in Vietnam.

Danish Veterinary Institute for Virus Research

The Veterinary Institute for Virus Research has been set up by the Ministry of Food, Agriculture and Fisheries for the specific purpose of developing and producing vaccines. Research is primarily based on problems related to current sanitary conditions in Danish livestock and within EU.

The institute has participated in a Co-ordinated Research Project on foot-and-mouth disease to develop a procedure to differentiate between infected and vaccinated livestock (organised by FAO/IAEA).

Danish Forest and Landscape Research Institute

The Danish Forest and Landscape Research Institute are organised under the Ministry of Environment and Energy. It has an International Unit with some research activities relevant to development research:

1. The International IUFRO Seminar, September 1999 in Copenhagen on "Forest Science and Forestry Contributing to Quality of Human Life in Developing Countries"
2. The World Bank supported study (1998-2000) on "For Whom and for What? Principles, Criteria and Indicators for Sustainable Forest Resources Management in Thailand"
3. The IUFEO All Division VI Meeting, January 1999 in Pretoria, South Africa session on "The Role of Forest and Landscape Research in Project Based International Development Aid".

Danida funded research activities:

1. Partner in the ENRECA funded project "Forest Management of Timber and Non-Timber Products in the Tropical Lowland of Bolivia"
2. Partner in the RUF application "Improving Rural Livelihoods: Towards sustainable forest and tree management in Nepal". The application was declined by RUF and the idea is now in process of being screened for inclusion in the Danida Natural Resources Sector Programme in Nepal
3. Partner in the preparation of Natural Resources management research component of the Danida funded Agricultural Sector Programme of Bangladesh.

DANCED funded research activities:

1. Partner in the Research Centre on Forest and People in Thailand. Biodiversity (forest ecology) studies
2. Partner in the Research Centre on Forest and People in Thailand. Anthropology (eco-tourism) studies
3. Partner in the Project on Capacity Building in Biodiversity in Northern Thailand.

Risø National Laboratory

Risø is a national laboratory under the Danish Ministry of Research and Information Technology. It houses the UNEP Centre, a collaborative activity between UNEP, Danida and Risø. The development research at Risø is placed within the departments of Plant Biology and Biogeochemistry and the Department of System Analyses.

Plant Biology and Biogeochemistry Department

Research related to developmental studies focus on the use and implementation of modern plant breeding using molecular markers, gene cloning and, when appropriate, induced mutations. National and foreign Ph.D. students, post-docs and scientists in the department are involved in the following activities to improve key crops for sustainable use:

- Development of DNA marker based molecular breeding for West Asian and North African countries (in collaboration with ICARDA)
- Identification of molecular markers for disease resistance in cereals (Iran)
- Improving the nutritional quality of rice (in collaboration with IRRI)
- Establishing seed specific dbEST database of expressed genes in finger millet (in collaboration with ICRISAT)
- Transfer of know-how, primarily in the field of biotechnology and gene technology
- Education and training of young scientists, particularly Ph.D. students.

System Analyses Department

The System Analyses Department of Risø has four main research areas one of which is the UNEP Centre for Energy, Environment and Development Planning. The research activities of this centre are:

- African Rural Energy Enterprise Development (AREED)
- Clean Development Mechanism in Africa
- Economics of Greenhouse Gas Limitations
- Energy Planning in Burkina Faso
- Energy Policymaking for Sustainable Development in the Caribbean
- Mitigation analysis (greenhouse gases) in South Africa
- Overcoming barriers to renewable energy technologies in India
- Power Sector Reform in Sub-Saharan Africa
- Promoting Investments in Energy Efficiency and Renewable Energy
- Removal of barriers to renewable energy technologies in Africa
- Renewable energy in Pacific Island Countries
- Strategy to accelerate the penetration of Renewable Energy Technologies in South Africa
- Sustainable Energy Advisory Facility (SEAF).

Biotechnological Research Institute

The Biological Institute is a private, independent, self-governing foundation. It carries out applied research within the field of biotechnology in agriculture and food production.

Its activities includes applied research, process and product development, certified analyses and consulting services in food and feed industries, pharmaceutical and chemical sectors. The institute employs at present a staff of 140 persons.

The research activities related to developing countries carried out by the Biotechnical Institute appears to be belong more to the category of long term consultancy work than to research proper. The Institute however, has generated overall knowledge in several fields present in the following projects:

- Training of staff from Central Laboratory For Food, Egypt (Client: Danida (DFC))
- Capacity Building and implementation of Quality Assurance at Central Laboratory For Food, Egypt (Client: Danida)
- Quality Assurance in Food Industries in Zimbabwe (Client: CDI, Brussels)
- Food Control in Latin America (Client: Inter American Development Bank)
- Implementation of NIR in Thailand (Client: Danida).

Copenhagen Peace Research Institute (COPRI)

The Copenhagen Peace Research Institute (COPRI) was established as an independent institute by the Danish Parliament in 1985 aimed at supporting and strengthening multidisciplinary research on Peace and Security. In 1996 the status of COPRI was made permanent and changed to that of a Government Research Institute under the Ministry of Research and Information Technology.

The purpose of COPRI is to stimulate debate and research on international key issues related to Peace and Security Studies. Research at COPRI is organised in five main research programmes:

- European security
- Military security
- Security in the Nordic and Baltic Area
- Intra-state conflicts: Causes and Peace strategies
- Global Governance and Peace.

Copri receives its core funding from the Ministry of Research (DKK 9.4 million in 1999). Project funds come from a wide range of different sources, both national (e.g. Social Sciences Research Council) and international (e.g. Ford Foundation). Danida provides some project funding.

Danish Institute of International Affairs (DUPI)

The Danish Institute of International Affairs (DUPI) is an independent institution established by statute in 1995. The institute's aim is to strengthen Danish research, analysis and information activities on international relations and Danish foreign policy. It receives its core funding (DKK 11 million in 2000) from the Ministry of Foreign Affairs.

DUPI is supervised by a board and the day-to-day management is in the hands of its Director, appointed by the Minister for Foreign Affairs on the board's recommendation.

Supporting the board is a council with representatives from various political parties, from the central administration, professional and industrial bodies as well as a number of scholars.

The *research* projects, many of which are carried out in collaboration with Danish and international partners cover a broad spectrum of subjects. Presently, the focus is on three main areas of research:

- The new world order
- The organisation of Europe and finally
- Denmark's place in a new regional and international context.

Additionally, the publication of the Danish Foreign Policy Yearbook is an important field of activity.

The analyses are ordinarily undertaken upon the government's or the parliament's request for thorough analysis of a specific topic. These do not necessarily mirror official Danish policy and are submitted on the board's responsibility. The analysis department is also responsible for documentation published each year in printed and electronic forms, i.e. articles, speeches, parliamentary debates, statistical accounts etc, and the annual bibliographical catalogue of literature on Danish foreign policy.

DUPI has a grant-giving function to support activities i.e. debates and information activities within the interest spheres of the institute. Small research grants (primarily for students and journalists) are distributed.

DUPI has not worked directly with Danida-related issues, but has conducted research on humanitarian assistance to Afghanistan, Somalia and Bosnia and has also provided policy advice and analysis in connection with the establishment of MIFRESTA.

Danish Centre for Human Rights – DCHR

The Danish Centre for Human Rights was established by a parliamentary decision on 5 May, 1987. The objective of the Centre is to gather and develop knowledge about human rights nationally, regionally, and internationally.

The work of the Danish Centre for Human Rights includes research, information, education, and documentation relating to Danish, European, and international human rights conditions. The Centre considers human rights work to be interdisciplinary, and therefore the staff have a broad range of professional backgrounds such as law, anthropology, sociology, economics, humanities, journalism, and pedagogy.

The Centre is under the direction of the Board which draws up the general guidelines for the Centre concerning budgets, plans of action, and hiring of researchers. The Board is composed of 12 members who are elected for a period of three years at a time. Six members are appointed by the Danish universities and six members are appointed by the Council of the Centre.

The Centre's total budget for 1998 is about DKK 44.9 million. The running of the Centre is financed by a state grant in pursuance of the Parliamentary Appropriation Act and by external grants. The state grant amounts to DKK 10.6 million in 1998. The state grant covers ordinary operating expenses and salaries for the permanent staff. The

Centre also receive grants from ministries as well as public and private foundations. These grants funded a diverse range of activities including research and projects, publications, support for democracy visits, educational programmes and conferences.

The Department of Research hosts 8 research projects from various disciplines. The projects are designed as basic research, meaning that they do not aim at providing solutions to actual human rights problems, but rather at questioning current understandings of the status, history and translatability of the human rights on a thorough scholarly basis. It is believed that this questioning is vital, also in the transformation of international conventions into a viable local practice.

Rehabilitation and Research Centre for Torture Victims – RCT

RCT has its origins in a medical group established by Amnesty International in Denmark in 1974 in connection with a campaign against torture. At that time, no systematic knowledge about torture and its consequences existed. This medical group began its work by examining torture survivors among Latin American refugees in Denmark and torture survivors in Greece. One of the strongest driving forces behind the work was Inge Genefke, who later took the initiative to establish RCT, officially established in 1982. At that time, the main purpose was treatment of torture survivors among refugees in Denmark, but in 1985, the organisation began working internationally and consequently, the International Rehabilitation Council for Torture Victims (IRCT) was established. In 1997, IRCT and RCT were split in two independent organisations.

RCT now works both in Denmark and in a series of countries in Latin America, Asia, Middle East and the Balkans. Danida is the main donor, but RCT's work is also supported by the Danish state football pools, foundations and legacies and private contributions.

RCT works within four focus areas:

- Treatment
- Research
- International project work
- Prevention – including training and information.

Research

Knowledge and documentation are prerequisites for being able to offer torture survivors the best treatment and for optimal prevention of torture and other forms of organised violence. Therefore, RCT has a department that undertakes research in the physical and mental consequences of torture and in developing new ways of treating the survivors. Furthermore, the reasons why torture takes place at all are being examined, as are the implications for the affected societies. The research takes place at RCT in co-operation with the partners and other human rights organisations, research institutions, universities in Denmark and abroad.

Examples of research activities:

- Language education for torture survivors with learning difficulties
- Psychoanalytic treatment of children having been subjected to torture and other violations

- Learning how to live with chronic pains
- Consequences of falanga (blows to the soles of the feet)
- Therapeutic process when treating trauma victims
- The physical conditions and social functioning of refugees before, during and after treatment at RCT.

ANNEX 4

Development Research in Sweden and the Netherlands: Priorities, Aspects of Funding and Organisation

As part of the assignment, the team made brief visits to Stockholm and The Hague to discuss recent developments regarding Swedish and Dutch policies towards development research. The following contains a summary based on those visits.

Sweden

The conditions for supporting research as part of Swedish development co-operation changed considerably during the mid-1990s when SAREC – the Department of Research Co-operation – merged into Sida. Sida has given high priority to research co-operation as an important strategy to enhance the capacity of developing countries. Even though a separate budget line has been maintained for research, programmes of research co-operation are being incorporated into the country strategies.

In 2000, Sida provided research funding of more than SEK 700 million per annum. Of this amount, SEK 670 million was distributed through SAREC which has a staff of 40 persons, 22 of them with a research background themselves.

A rough distinction can be made between the following types of research funding:

- The funding of research as a sector within development co-operation. Such support is mainly channelled through SAREC.
- Research activities funded as integral elements of development programmes
- Funding of research for internal use, e.g. as a basis for methods development.

In 1998, SAREC adopted *Guidelines for Research Co-operation* in order to harmonise policies and practices. An important point of departure is that development of knowledge for developing countries can never be more than a minor contribution towards their sustainable development; and that the latter requires development of knowledge within and by the countries and their active participation in international research. Furthermore, only a minor part of research efforts in developed countries focuses on issues of central relevance to developing countries, or on global issues. Again, only a minor part of such research is carried out in developing countries, many of which have a very limited capacity for research.

According to SAREC, the term “knowledge society” means more than the quality and scope of a country’s education and research systems. It also refers to the quality of the interaction between education and research and society at large. Capacity for research is an important part of a country’s knowledge system, essential to even the poorest countries. However, universities and research institutions are not merely producers of knowledge

for the solution of problems. They are also important cultural institutions and constitute one of the most important forums for critical analysis and debate on various social conditions. Research is also important for the quality of higher education.

Hence, the allocations for research made within Swedish development co-operation include both the production of knowledge to address specific development problems and processes and support for the build up of a research and knowledge system.

To achieve the optimum impact, Sida research funding should be focussed and directed to areas where it has a comparative advantage and where it may play the role of catalyst. Support should be concentrated to a limited number of geographic and thematic areas; there should be a focus on areas of comparative strength in terms of experiences, methods and special competencies; and operations should focus on influencing and contributing to the mobilisation of other resources than those at Sida's disposal.

The overall objective of research co-operation through SAREC is to strengthen the research capacity of developing countries and to promote development-oriented research. There are four basic action programmes with a total disbursement in 1999 of SEK 510 million:

- **Bilateral Programmes.** This is the main form of support for the development of research capacity. It involves countries with which Sweden has long-term and broad programmes of development co-operation (partner countries). The notion that every country needs at least one research university is central to Swedish efforts in the bilateral programmes. Co-operation is tailored to strengthen the structure and organisation of research in the partner countries and support the country's own funding and administration of research. As conditions vary from country to country, so different types of inputs are required. In 1999, bilateral research programmes were active in Eritrea, Ethiopia, Mozambique, Tanzania, Zimbabwe, India, Sri Lanka, Vietnam and Nicaragua. SEK 164 million (28 per cent) were set aside for the programmes.
- **Regional and Special Programmes.** In view of the tremendous gaps in knowledge of central relevance to developing countries, it also remains necessary to mobilise resources at the regional and international levels for development-oriented, thematic research programmes. Thematic research support is directed towards health, natural resources, social sciences and the humanities as well as natural science, energy and technology. The thematic programmes have a number of different aims, but central is the idea that national capacity development often needs to be supplemented by regional or sub-regional co-operation through special programmes, networks or special organisations set up for this purpose. In 1999, 35 per cent of the total allocation was set aside for this purpose.
- **International Co-operation.** This includes support for special international research programmes, some of which have turned into more or less permanent institutions with a special mandate to support and implement development-oriented research. Thus, within health, Sida is a major donor of two special research programmes: TDR (tropical diseases research) and HRP (human reproductive health) related to WHO. The largest research allocation goes to the Consultative Group for International Agricultural Research (CGIAR), a global network of 16 international research centres. In 1999, 27 per cent of the total allocation were channelled to international programmes.
- **Support to Swedish Development Research.** The Swedish research community constitutes an important resource in Sida-supported research co-operation. Within

the bilateral programmes, Swedish researchers participate in joint research, in the training of researchers and in the development of research environments. New programmes have been developed to stimulate Swedish research co-operation with partners in developing countries. Swedish researchers may also engage in thematic research programmes. In addition to these programmes, where the Swedish research is funded as an instrument to reach other objectives, a special programme has been established to promote Swedish development research. The **Sida Development Research Council** invites annual applications and allocates grants for development research in Sweden. Applications are peer reviewed for scientific quality as well as for development relevance and grants are approved on a competitive basis. For the year 2000, Sida granted SEK 62 million to project applications under this programme. Additional funds, amounting to SEK 21 million, were granted to applications within special areas of invitation defined by other Sida departments. This mechanism provides an alternative to commissioned research by using the process of peer review. Approximately 10 per cent of SAREC's research funds are allocated to support Swedish development research. For 2001, altogether SEK 97 million will be available. Within the programme, almost half of the allocation is spent on doctoral grants (112 grants in 1999). Criteria of relevance are relatively strict (is it important for the country where research is proposed?) and it is necessary for researchers to have good contacts with colleagues and research institutions in the countries concerned. At SAREC, three staff members handle the programme but are able to draw on others during the annual handling of applications.

Perhaps not unexpectedly, the review team found an organisation in the forefront of debates concerning research and research capacity, "knowledge societies", etc. It may be of particular interest that there is, at SAREC, also a high degree of consciousness regarding the importance of development-related research and close contacts with the non-European world for the sake of our own societies. Thus, for example, a new student exchange programme has recently been established (the Linnaeus Programme) to stimulate interest among Swedish students for attending universities in developing countries, and among students in developing countries for the same in Sweden. For 2001, SEK 8,3 million has been set aside for this programme.

The Netherlands

In 1990 an inventory was made of research activities being financed by the Directorate General for International Cooperation (DGIS) at that time. This revealed a lack of perception of research needs in the developing countries concerned. Research proposals were often initiated by the Dutch side, from their position as donors. Much research did not relate to the priorities of country or regional programmes.

In 1990 DGIS spent over NLG 124 million on research activities. This sum was split among the various programmes and categories in the following percentages:

- The Research and Technology (OT) programme 26%
- Country and regional programmes 47%
- Sector programmes 13%
- Subsidies for institutes (international) 14%

The results of the inventory were already available during the drafting of the policy document *A world of difference*, and the deficiencies which it highlighted were a contributory factor in the decision to draft a new research policy. The main point of focus was the OT programme, which was in an isolated position, maintaining only incidental contacts with the country and regional programmes. The decision to terminate the OT programme and to set up a Spearhead Programme on Research, aimed inter alia at promoting development-related research in the country and regional programmes, can largely be traced back to this point.

As part of the changes, it was decided that a more demand-oriented and programmed approach was required if research was to be better geared towards social problems.

When formulating an overall research policy for development co-operation account was taken of the immense variety of research activities supported by DGIS, as part of the international, multilateral and bilateral co-operation:

- **Studies** – varying from project feasibility studies to literature surveys to assessments
- **Research projects** – geared to a specific aim, to add or help to modify knowledge and understanding of a more general character
- **Research capacity strengthening** – activities geared to reinforcing or establishing capacity to generate knowledge and understanding, comprising the whole research cycle. Activities can consist of education and training, technical assistance, research and studies, institutional co-operation and material support
- **Research programmes** – a related body of activities which receive long-term funding. Capacity building can be an important aim or sub-aim of a research programme; and
- **Subsidies** – core funding to international and other research bodies such as the Centre for World Food Studies (SOW) and the contributions to CGIAR.

Among the initiatives which were taken as part of a new research policy was the initiation of Multi-year Multidisciplinary Research Programmes (MMRPs) as part of Dutch bilateral co-operation.

These were launched in nine countries in Asia, Africa and Latin America. The basic philosophy of these programmes is that stakeholders in the countries themselves should be encouraged to “formulate and own” their research agenda, to decide on the content of the programme, and to organise their own research. The overall objectives of the MMRPs are: (a) To provide greater opportunities for research that is relevant to local development problems; (b) To ensure that the research findings are disseminated and used; and (c) To strengthen the capacity of local researchers and institutes in the South.

All the programmes have adopted a long-term perspective, on sustainable development; they are themselves fully responsible for implementing and designing the programmes; they emphasise multidisciplinary and the strengthening of research capacity; and they are concerned with consulting with a wide range of groups representing the poor, with NGOs, and with policy makers to ensure that results will be used. To encourage South-South co-operation, annual meetings are organised so that representatives of the MMRPs can get together to exchange information and experiences.

In addition to these programmes, there are specific research and capacity strengthening projects, also in countries with MMRPs.

Dutch researchers are involved in various ways, but a clear trend has been that DGIS is currently much less interested in their work. There also seems to be a lack of interest at the side of DGIS in maintenance and fostering of appropriate research capacity in The Netherlands. Thus Dutch researchers have purposefully been left out of the MMRPs. However, the Inspection and Evaluation Section of DGIS generates a lot of good quality evaluation research in which Dutch consultants and research institutes are involved.

WOTRO

is the Netherlands Foundation for the Advancement of Tropical Research residing under the Netherlands Organisation for Scientific Research. Its main mission is the enhancement of high quality scientific research in tropical regions and developing countries.

From 1981 onwards a formal arrangement was drawn up between WOTRO and DGIS. DGIS provides WOTRO with a “bonus” of a maximum of NLG 500,000, if more than NLG 1,000,000 was spent on development related research, according to DGIS criteria. In the early 1990s this arrangement was broadened in scope and financial consequence. At the time of writing, DGIS provides 50 per cent of WOTRO’s budget, which is altogether NLG 15 million, the remainder coming from the Ministry of Education, Culture and Science. In 1999, WOTRO supported 251 projects.

The WOTRO board consists of 10 members. It determines the policy and priorities of WOTRO. There is no institutionalised contact with the stakeholders, however there is regular contact between such stakeholders and the WOTRO bureau which is staffed by 11 persons.

Regarding the grants, the proportions are, roughly speaking, 50 per cent project support (largely monodisciplinary) to 50 per cent multidisciplinary programme support, and 50 per cent fundamental research to 50 per cent socially relevant research. In the early years the WOTRO policy emphasis was on the funding of individual research projects, without specific thematic paths or priorities. Until 1980, two issues were important: Quality of the proposal and fieldwork in the tropics. In 1980 development relevance was added as a third element.

In the early 1990s multidisciplinary themes were introduced and a budget set aside for integrated programmes with specific topics. The board has experimented with both top down and bottom up approaches. Currently, applications for small programmes (max. 5 researchers) can be submitted within the framework of four broad themes which have been formulated by the WOTRO board. However, there is also an “open” procedure for individual project applications. There is increasing collaboration with other parts of the research council system, and it is estimated that perhaps the equivalent of an annual WOTRO budget (NLG 15 million) is allocated to development-related research by other councils.

Another development has been the increasing involvement of researchers from the South. Not only have they been invited to take part in programme committees (for the thematic areas); since 1994, they have also been eligible to WOTRO funds. Thus WOTRO has funded a regional network of 20 researchers from the South on coastal zone problems in Asia. It also administers a DGIS-financed PhD-fellowship programme for students from developing countries.

RAWOO

The primary task of the Netherlands Development Assistance Research Council (RAWOO) is to issue recommendations regarding how research that is funded by the Dutch government for the purpose of fostering development can best be attuned to the needs of developing countries. RAWOO's principal tasks are: (a) to issue recommendations regarding research priorities and to put forward proposals for long-term research programmes, and (b) to foster communication among the various parties involved in research for development: researchers, policy makers and end users, both in the South and the North. Total government expenditure on development-related research is estimated at 300 to 400 million guilders a year (approximately 150 to 200 million US dollars).

While RAWOO is primarily an Advisory Council, it has taken upon itself to become more of an programming and even, in some cases, implementing organisation. This applies particularly to its involvement in the process of designing two collaborative South-North research programmes:

- The Ghanaian-Dutch Programme for Health Research for Development (initially with WOTRO); and
- The Philippine-Dutch Programme of Biodiversity Research for Development.

These are considered pilot programmes, initiated to try out and test principles and ideas regarding “ownership” and equality in the planning and implementation of research programmes. RAWOO is also considering new themes: globalisation, and conflict and development.

NUFFIC

The Netherlands Organisation for International Cooperation in Higher Education (NUFFIC) has “linking knowledge worldwide” as its motto. It supports the higher education institutions in their efforts within international co-operation and main areas of activity are development co-operation, internationalisation, the fostering of transparency and mutual recognition for purposes of international mobility, and the positioning of Dutch higher education on emerging markets. Its core business is programme management, the management of networks, consultancy, credential evaluation, and communication.

The Dutch structures relevant for development research are quite complicated. However, a key feature is that the Ministry of Education, Culture and Science is basically responsible for everything that has to do with scientific quality and the maintenance of academic competence. It is also responsible for the Netherlands Organisation for Scientific Research which is the national research council system where WOTRO is located. This means i.a. that there are different “money streams” for Dutch institutions. WOTRO itself receives two such streams, one from the Ministry of Education and one from DGIS. Universities receive their core grant from the Ministry of Education and are estimated to spend as much as 6-7 per cent of their budgets altogether on development-related research. As far as DGIS is concerned, an increasing proportion of available funds are targeted for researchers and research institutions in developing countries.

ANNEX 5

People Consulted

Monday 4/9

Anne Sørensen	Coordinator for the Network for Agricultural Research for Development
Poul Buck-Hansen	Director, Development Associates a/s
John Martinussen Degnbol	Professor, IDS, Roskilde University

Tuesday 5/10

Holger Bernt Hansen	Professor, Center for Africa Studies, University of Copenhagen
Ivan Nielsen	Chairman of the Board of Danida Chairman of Council for Development Research (RUF)
Klaus Winkel	Danida's Research Department (StS.4)

Monday 11/9

Bertel Heurlin	DUPI (Danish Institute of International Affairs)
Bente Ilsø	Danida's ENRECA programme (StS.4)
Erik Rüdinger	Danida's ENRECA programme (StS.4)
Geert Aagaard Andersen	Head of Danida's Office for Humanitarian Affairs (S.3)

Tuesday 12/9

Lene Blegvad	Coordinator of ENRECA Network for Health Research
Håkan Widberg	COPRI (Copenhagen Peace Research Institute)
Ole Møller	COPRI
Jens Berthelsen	Confederation of Danish Industries

Wednesday 13/9

Poul Engberg Pedersen	CDR
Jannik Boesen	CDR
Gorm Rye Olesen	CDR
Poul Ove Pedersen	CDR

Thursday 14/9

Morten Kærum	Danish Centre for Human Rights
Kirsten Hastrup	Danish Center for Human Rights
Hans-Otto Sano	Danish Centre for Human Rights
Ole Winckler Andersen	Danida TSA
Lars Christensen	COWI
Jan Kieler	COWI

Friday 15/9

Jørgen Henriksen	Danida TSA 1: agriculture, forestry, fishery,
Margrethe Holm Andersen	Danida TSA 6: environment, indigenous people
Hans Hessel-Andersen	Danida TSA 2: water & water resources

Anders Baltzer Jørgensen	Danida TSA 5: economic affairs, social development, training
Wednesday 20/9	
Niels Ørnsbjerg Peter Aaby	Director, Danish Bilharziasis Laboratory RUF Research Professor of International Health
Thursday 21/9	
Bjørn Førde Susan Whyte	Director, Mellemfolkeligt Samvirke – MS Professor, Institute of Anthropology, University of Copenhagen
Christian Kruse	Deputy Director, Ministry of Environment and Energy – DANCED
Friday 22/9	
Villy Vibholt Peter Koefoed Bjørnsen	Head of Secretariat, Danish Council for Research Policy Deputy Director, National Environmental Research Institute
Monday 02/10	
Martin Hvidt	Ass. Professor, Centre for Contemporary Middle East Studies, University of Southern Denmark (Odense)
Erik Christensen	Department of Biology, University of Southern Denmark (Odense)
Tuesday 03/10	
Ivan Nielsen Tomas Cedhagen Thomas Nielsen	Institute of Biological Sciences, University of Aarhus Department of Marine Ecology, University of Aarhus Centre for Tropical Ecosystems Research, University of Aarhus
Clemens Stubbe Østergaard Jørgen Dige Pedersen Jens Aage Hansen	Department of Political Science, University of Aarhus Department of Political Science, University of Aarhus Professor, Environmental Engineering Laboratory, Aalborg University
Olav Jull Sørensen	Professor, Department of Development and Planning, Aalborg University
Johannes D. Schmidt Tom Nyvang	Department of Dev. and Planning, Aalborg University IT Innovation, Aalborg University
Wednesday 04/10	
Poul Degnbol	Director, Institute for Fisheries Management, Hirtshals
Wednesday 01/11	
Knud-Erik Skouby	DTU – Technical University of Denmark
Thursday 16/11	
Anne Christensen Anni Christensen Villy Vibholt	Danida Fellowship Centre Danida Fellowship Section Danish Council for Research Policy

Friday 17/11	
Morten Elkjær	Danida Environmental Secretariat
Ebbe Schiøler	(retired from Danida's Research Department)
Britta Mikkelsen	COWI
Thursday 23 /11	
Niels Thygesen	Professor, University of Copenhagen
Johannes Østergaard	Danish Council of Agriculture
Friday 24/11	
Henrik Schaumburg-Müller	Ass. Professor, Copenhagen Business School
Pia Rockhold	Danida TSA 4: Health
Monday 27/11	
Prof. Marc Wuyts	Institute of Social Studies, Den Haag
Prof. Max Spoor	ISS
Prof. Mohamed Salih	ISS
Leen Boer	DGIS/MBZ (Ministry of Foreign Affairs, Den Haag)
Tuesday 28/11	
Dr. Ed Maan	RAWOO (Netherlands Development Assistance Research Council)
Dr. Renée van Kessel	WOTRO (Netherlands Foundation for the Advancement of Tropical Research)
Wednesday 29/11	
Erik Christensen	Director, Danish Council of Consulting Architects and Engineers
Elsebeth Krogh	International Director, DANCHURCHAID
Thursday 30/11	
Jørn Rasmussen	DHI-Water & Environment
Bjørn Kaare Jensen	DHI-Water & Environment
Torkil Jønch-Clausen	Global Water Partnership/ DHI-Water & Environment
Søren Jepsen	Manager, European Malaria Vaccine Initiative
Finn Tarp	Ass. Professor, DERG & University of Copenhagen
Friday 01/12	
Johnny Baltzersen	Executive Director, International Programmes, Danish University of Education
Ulla Ambrosius Lassen	Danish University of Education
Mogens Pedersen	Professor, Odense University & Chairman of the Board, CUF
Per Ronnås	Director, Nordic Institute of Asian Studies NIAS
Ida Nicolajsen	Professor, NIAS
Friday 08/12	
Berit Olsson	Director of SAREC, Sida
Thomas Kjellquist	SAREC
Michael Ståhl	SAREC