Sida Evaluation 06/40:1

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Individual Reports and Cases

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Acronyms and Abbreviations

AAS	African Academy of Sciences
AAVP	African AIDS Vaccine Programme
AERC	African Economic Research Consortium
AFORNET	African Forestry Research Network
AFREPREN	African Energy Policy Research Network
AHPSR	Alliance for Health Policy and Systems Research
AIT	Asian Institute of Technology
ASIF	African Science and Innovation Facility
ATPS	African Technology Policy Studies Network
AU	African Union
BECA	Biosciences Eastern and Central Africa
BIO-EARN	Biotechnology, Biosafety and Biopolicy in East Africa
CAH	Department of Child and Adolescent Health and Development, WHO
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CGIAR	Consultative Group on International Agricultural Research
CEEPA	Centre for Environmental Economic Policy in Africa
CIAT	Centro Internacional de Agricultura Tropical
CIDA	Canadian International Development Agency
CIFOR	Center for International Forestry Research
CIMMYT	Centro Internacional de Mejoramiento de Maiz y Trigo
CIP	Centro Internacional de la Papa
CLACSO	Consejo Latinoamericano de Ciencias Sociales
CODESRIA	Council for Development of Social Science Research in Africa
COHRED	Council on Health Research for Development
COMESA	Common Market for Eastern and Southern Africa
CORDIO	Coral Reef Degradation in the Indian Ocean
CSUCA	Consejo Superior Universitario de Centroamérica
DAC	Development Assistance Committee (OECD)
DFID	Department for International Development (UK)
ECA	East African Community
ECOWAS	Economic Community of West African States
EDCTP	European and Developing Countries Clinical Trials Partnership
EMVI	European Malaria Vaccine Initiative
EEPSEA	Economy and Environment Program for Southeast Asia
EIARD	European Initiative for Agricultural Research for Development
EU	European Union
FLACSO	Facultad Latinoamericana de Ciencias Sociales
FORMAS	Swedish Research Council for Environmental Agricultural Sciences and Spatial Planning
FORNESSA	Forest Research Network for Sub-Saharan Africa
GEF	Global Environment Facility
GFHR	Global Forum for Health Research
GMO	Genetically modified organism
GNI	Gross National Income
GWH	Gender, Women and Health (WHO)
HICs	High Income Countries
HRP	UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction
IAVI	International AIDS Vaccine Initiative

ICARDA	International Centre for Agricultural Research in the Dry Areas
ICDDR, B	International Centre for Diarrhoeal Disease Research, Bangladesh (Centre for Health and Population Research)
ICIPE	International Centre of Insect Physiology and Ecology
ICRAF	World Agroforestry Centre
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICT	Information and Communication Technology
ICTP	International Centre for Theoretical Physics
IDRC	International Development Research Centre
IFORD	International Forum of Research Donors
IFPRI	International Food Policy Research Institute
IFS	International Foundation for Sciences
IITA	International Institute of Tropical Agriculture
ILO	International Labour Organization
ILRI	International Livestock Research Institute
INCLEN	International Clinical Epidemiology Network
INDEPTH	International Network of Field Sites with Continuous Demographic Evaluation of Populations and Their Health
IRET	Central American Institute for Studies on Toxic Substances
IRRI	International Rice Research Institute
ISP	International Science Program
IUCEA	Inter-University Council for East Africa
IUFRO	International Union of Forest Research Organizations
IVI	International Vaccine Institute
IVR	Initiative on Vaccine Research, WHO
IWMI	International Water Management Institute
KICAMP	Kinondini Integrated Coastal Area Management Programme
LDC	Least Developed Countries
LFA	Logical Framework Analysis
LIC	Low Income Countries
LMIC	Low and Middle Income Countries
MDGs	Millennium Development Goals
MFA	Ministry of Foreign Affairs, Sweden.
MIM	Multilateral Initiative on Malaria
MTCT	Mother-to-Child Transmission (of AIDS)
NARS	National Agricultural Research Systems
NEPAD	New Partnership for African Development
NGO	Nongovernmental Organization
NORAD	Norwegian Agency for International Development
NRF	National Research Foundation
OECD	Organisation for Economic Co-operation and Development
OSSREA	Organization for Social Science Research in Eastern and Southern Africa
PINEP	Pastoral Information Network Project
PRSP	Poverty Reduction Strategy Papers (World Bank)
RPSUD	African Research Programme on Sustainable Use of Dryland Biodiversity
RSA	Republic of South Africa
S&T	Science and Technology
SADC	Southern African Development Community
SAREC	Department for Research Cooperation
SEI	Stockholm Environment Institute
Sida	Swedish International Development Cooperation Agency
SSA	Sub-Saharan Africa

STIs	Sexually Transmitted Infections
TDR	UNICEF/UNDP/World Bank/WHO Special Programme on Research and Training in Tropical Diseases
TEHIP	Tanzania Essential Health Interventions Project
TWAS	Third World Academy of Science
TWOWS	Third World Organization for Women in Science
UAPS	Union for African Population Studies
UDSM	University of Dar es Salaam
UIC	Upper Income Countries
UMIC	Upper Middle-Income Countries
UN/DESA	United Nations/Dept. of Economic and Social Affairs
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United National Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNRISD	United Nations Research Institute for Social Development
USAID	United States Agency for International Development
UTV	Sida Department for Evaluation and Internal Audit
VicRes	Lake Victoria Research Initiative
VINNOVA	Swedish Governmental Agency for Innovation Systems
WARDA	Africa Rice Centre
WHA	World Health Assembly
WHO	World Health Organization
WHO/TDR	World Health Organization/Tropical Diseases Research
WIOMSA	Western Indian Ocean Marine Science Association
WSSD	World Summit on Sustainable Development

1. Scope and Organization of the Study

The Swedish International Development Cooperation Agency (Sida) was requested by the Government of Sweden to undertake a comprehensive overall assessment of research cooperation activities of SAREC. The central department for Evaluation and Internal Audit of Sida (UTV) was given the task and commissioned a series of five parallel reviews and assessments of the Department for Research Cooperation (SAREC) activities. This volume is an output of the fifth study in the group, which reviewed the experiences of SAREC in supporting international and regional research programs, which have been organized along thematic lines.

The main report provides the broad context for the evaluation, the methods and limitations, and the policy and development context of Sida/SAREC. A detailed methodology section describes the processes, the priorities for the study, and the interviews and document reviews that are reported in this report. The main report then describes Sida/SAREC organization, objectives and programs. Then a third section gathers the findings of the review and interviews, and summarizes the key findings that are used to draw the final conclusions. The fourth section contains main findings and conclusions; a short summary of key recommendations is given in the fifth section. Summaries of individual studies by team members of 38 cooperating partners and contributions are provided in this report.

This report contains more detailed information and observations on specific contributions and programs that were followed up by individual team members. The cases and interviews reported here focused on the partner organization views on their own context and roles in specific aspect of development research and their perceptions of Sida/SAREC contributions and processes. An attempt was made to avoid undue efforts to judge individual contributions during the interviews while prior evaluations and reports were used to place the organisation and their outputs within a larger context. These notes are provided in this volume with three objectives: making the field notes for the assessment widely available (a recommendation of many evaluations[1]), the material is relevant to specific stakeholders, involved in particular programs, and, many examples that were briefly reported in the main report are reported in more detail. This section often provides details of field observations that have shaped the findings, conclusions, and recommendations in the main report. We have attempted to avoid repeating generic information on thematic programs between the volumes.

The volume is organised by thematic program areas. The sample of research organizations that have been supported by Sida/SAREC and covered in this volume are provided in section 1.2. The first thematic section covers the social science and humanities area supported by Sida/SAREC in the priority region of Africa, and is prepared by Oliver Saasa. The second thematic section covers the support in the area of health, with a focus on large international programs and is prepared by Mary Ann Lansang. The third thematic area of Natural Resources and Environmental Sciences follows next. Here the main contribution is by Gunilla Björklund together with inputs from Francisco Sagasti and Amitav Rath. This is followed by the smallest sample of three cases in Natural Sciences and Technology. A final section covers five contributions in Asia and Latin America. Individual cases in the final two sections have been prepared by Francisco Sagasti and Amitav Rath.

The intended audience for this report is expected to be different than for the main report. The more detailed comments on individual contributions and of some programs reviews will be more useful to management and staff of Sida/SAREC, sometimes to the managers of the programs discussed, and to some donors and other partners. They are likely to be read by persons with an interest in specific research area, or a specific organization. The observations should also be useful for planning future evaluation activities by UTV and SAREC.

[1] For example, J. Carlsson and L. Wohlgemuth (1996) Capacity Building and Networking: A Meta-evaluation of African Regional Research Networks, Sida Evaluation 96/45, Department for Evaluation and Internal Audit, Sida.

1.2 Institutional Coverage of the Evaluation

	Location	Insitutions	SAREC support 2000–2005	Consultants
		International		
		CGIAR	442,837,250	
1	Colombia	CIAT		F. Sagasti
		CIFOR		
		CIMMYT		
2	Peru	CIP		F. Sagasti
		ICARDA		
		ICLARM		
3	Kenya	ICRAF		G. Bjorklund
		ICRISAT		
		IFPRI		
		IITA		
4	Kenya	ILRI		G. Bjorklund
		IPGRI		
5	Philippines	IRRI		A. Rath
		ISNAR		
		IWMI		
		WARDA		
	Switzerland	World Health Organization (WHO)	246,800,000	
		African AIDS Vaccine Program/AAVP		
6	Switzerland	Alliance for Health Policy and Systems Research		M-A Lansang
7	Switzerland	Child and Adolescent Health and Development/CAH		M-A Lansang
8	Switzerland	Department of Research Policy and Cooperation/ RPC		M-A Lansang
9	Switzerland	Initiative on Vaccine Research/IVR		M-A Lansang
10	Switzerland	Program of Research in Human Reproduction/ HRP		M-A Lansang
11	Switzerland	Special Program on Research and Training in Tropical Diseases/TDR		M-A Lansang
12	Sweden	Uppsala University/International Science Programs (ISP)	162,623,938	F. Sagasti
13	Sweden	International Foundation for Science (IFS)	101,640,000	G. Bjorklund & F. Sagasti
14	Switzerland	Council on Health Research for Development	47,250,000	M-A Lansang
15	Switzerland	Global Forum for Health Research (GFHR) *	25,000,000	M-A Lansang
16	Canada	IDRC	12,400,000	A. Rath
17	Ghana	Indepth Network	10,500,000	M-A Lansang
18	Sweden	Democracy and Human Rights (Utkal University)	415,000	A. Rath
			1,049,466,188	
		Africa		
19		Council for the Development of Social Science Research in Africa (CODESRIA)	94,941,569	O. Saasa
20	Sweden/E. Africa	BIO-EARN (Stockholm Environment Institute/IUCEA)	89,638,000	G. Bjorklund
21	Kenya	African Economic Research Consortium/AERC	64,500,000	O. Saasa
22	Ethiopia	Organization for Social Science Research in Africa/OSSREA	53,106,695	O. Saasa
23	Kenya	Western Indian Ocean Marine Science Association /WIOMSA/MAMSA	46,538,244	G. Bjorklund

24 Kenya	International Centre of Insect Physiology and Ecology/ICIPE	47,000,000	G. Bjorklund
25 Kenya	African Academy of Sciences/AFORNET	43,250,000	G. Bjorklund
26 Kenya	National Museum of Kenya/RPSUD	26,400,000	O. Saasa
27 Uganda	Vic Research/IUCEA Inter-University Council in East Africa	25,100,000	A. Rath
28 Kenya	Coral Reef Degradation in the Indian Ocean/CORDIO	21,750,000	G. Bjorklund
29 Tanzania	University of Dar es Salaam	14,360,000	G. Bjorklund
30 Senegal	Union for African Population Studies/UAPS	12,014,400	O. Saasa
31 Tanzania	Kinondoni Integrated Coastal Area Management Programme/ KICAMP *	9,500,000	G. Bjorklund
32 Kenya	The African Technology Policy Network /ATPS	1,800,000	O. Saasa
		549,898,908	
	Asia		
33 Thailand	Asian Institute of Technology/AIT	34,349,565	A. Rath
34 Bangladesh	ICDDR,B *	32,000,000	M-A Lansang
35 Singapore	Economy & Environment Program for South East Asia /EEPSEA*	2,730,000	A. Rath
		69,079,565	
	Latin America		
36 Argentina	Consejo Latinoamericano de Ciencias Sociales/CLACSO	81,700,000	F. Sagasti
37 Costa Rica	Facultad Lationamericana de Ciencias Sociales/FLACSO	45,400,000	F. Sagasti
38 Costa Rica	Centro Agronómico Tropical de Investigacion y Ensenanza /CATIE	1,000,000	F. Sagasti
		128,100,000	
Total		**1,796,544,661**	

* Estimates

1.3 Evaluation Team

Amitav Rath

Amitav Rath is the team leader for the evaluation. He was trained in science and engineering at the undergraduate level in India. He then worked on his Masters and Ph.D. at Berkeley in Operations Research with a focus on economics and systems analysis. He has taught in India, Canada, Jamaica, Sweden, and the USA in areas of management, economic planning, technology and innovation, and, on energy and environment. He worked at the International Development Research Centre (Canada) for over ten years and was the manager of programs in Science, Technology, Energy and Economics during this period. At present he directs a consulting practice at Policy Research International based in Ottawa. Currently he is a member of the Technical Advisory Group for the World Bank trust funds on energy, and is an editor of the journal Comparative Technology Transfer and Society. He has recently completed work on Biotechnology for Development, a review of selected S&T issues for IDRC, on South-South cooperation for the UNDP, and a synthesis of the use of innovations framework in the natural resources research funded by DFID.

Francisco Sagasti

Francisco Sagasti is Executive Director of FORO Nacional/Internacional in Lima, Peru, a not-for-profit civil association that promotes dialogue and consensus on critical development issues, and Director of its Agenda: PERÚ program. In addition to various academic, private sector and government advisory positions in Peru and other countries, he has been an advisor and consultant to a large number of international organizations, government agencies, and private firms. He has been visiting professor

at the University for Peace in Costa Rica, Chief of Strategic Planning at the World Bank, Chairman of the United Nations Advisory Committee on Science and Technology, visiting professor at the Wharton School of the University of Pennsylvania, a member of the Board of Governors of the Canadian International Development Research Centre (IDRC). He holds a Ph.D. in operations research and social systems sciences from the University of Pennsylvania and engineering degrees from the National Engineering University in Lima, Peru, and Pennsylvania State University. He has published over 20 books on development strategies, science and technology policy, development financing and related themes.

Gunilla Björklund

Gunilla Björklund has a PhD in Physical Geography from Uppsala University and is consultant on international water policy issues, climate change, and land degradation issues. She has undertaken consultancy services for others Stockholm International Water Institute, Sida, Global Water Partnership, the Swedish Ministry for the Environment, UN, UNEP, GEF/World Bank, and UNDP through GeWa Consulting and other groups. She has been doing expert reviews for International Waters as well as Sustainable Land Management projects as a GEF/STAP expert. She has evaluated SAREC:s climate policy and climate, energy and environment program at AIT. She was the executive secretary for the UN/SEI Comprehensive Assessment of the Freshwater Resources of the World and worked closely with UN/DESA, UNEP, UNDP, FAO, WHO, WMO, UNESCO, UNIDO, and the World Bank (1994 to 1997). Prior to that she was special advisor at the Swedish Ministry for Foreign Affairs with responsibility for multilateral assistance for the environment, including the GEF, and as chief negotiator to the UNCCD and negotiator for the UNFCCC. She worked at the Swedish UNCED secretariat, responsible for Agenda 21 chapters on science and research, on freshwater and on desertification issues. She has worked as an assistant professor at Uppsala University and continues to teach at several Swedish universities.

Mary Ann Lansang

Dr Mary Ann Lansang is Professor of Medicine and Clinical Epidemiology at the University of the Philippines. She was the immediate past Executive Director of INCLEN Trust International, Inc. (the International Clinical Epidemiology Network), 2000–04, a global network dedicated to improving equity, efficiency, and quality in health care, through training and the production and application of the best evidence on interventions. She currently serves on the Board of Trustees of the Centre for Health and Population Research (ICDDR,B), Bangladesh, Dhaka, as well as a member in various expert committees of WHO: Scientific & Technical Advisory Committee, WHO Special Programme on Research & Training in Tropical Diseases (WHO/TDR); the Strategic Advisory Group of Experts (for vaccines and immunization); the WHO Western Pacific Advisory Committee on Health Research; and the editorial board of the Bulletin of WHO. She has also served in the boards or advisory committees of other international bodies including the Council on Health Research for Development, the Global Forum on Health Research, the Alliance on Health Policy and Systems Research, and the WHO Initiative on Vaccine Research. She has published widely on infectious and tropical diseases, clinical epidemiology, health policy and systems research, knowledge management, research capacity development, health research policy, and research ethics.

Oliver Saasa

Oliver Saasa, a professor of International Economic Relations, is the Managing Consultant/CEO of Premier Consult Limited, a consulting firm based in Lusaka, Zambia. Previously, he worked at the Institute of Economic and Social Research (University of Zambia) where he served as Director from 1988 to 2000. A Rhodes Scholar, Prof. Saasa has published widely in the field of international relations, concentrating mainly on regional integration and trade promotion in Southern Africa. In the past 10 years, he has released several publications on the relations between industrial and developing countries, focusing primarily on the aid flows and donor-recipient structures for aid management. His most recent publications in this field include the book, *Aid and Poverty Reduction in Zambia: Mission Unaccomplished* (NAI, Uppsala, 2002). Prof. Saasa has developed aid policies for Ethiopia and Zambia and has assisted several

governments in Southern Africa in the field of donor harmonization and alignment. He has served as a consultant for many regional and international organizations that include the World Bank, OECD/DAC, Sida, NORAD, COMESA, SADC, UNDP, and USAID, mainly evaluating their support to developing countries.

2. Humanities and Social Sciences in Africa: Selected Cases[2]

2.1 Background

In it effort to support capacity building and strengthening in developing countries, Sida has given prominence to research cooperation. To the extent that the primary objective of Swedish development cooperation is to reduce poverty, Sida's research cooperation has focused primarily on low-income countries. Support is mainly through bilateral support to research institutions as well as to regional and international research networks and institutions. At the bilateral level, Sida contribution has included support for research management, training, and research facilities. This form of assistance usually targets universities or faculties in the context of their own research development plans. Sida has also supported regional research networks that have been specifically established to address thematic research priorities, and consisting of like-minded regional/continental institutions, faculties, and professionals. Sida gives preference to supporting existing networks/initiatives rather than the establishment of new ones. Sida support is often in the form of core funding for an agreed research agenda, although earmarked funding is not uncommon particularly in the least-developed countries.

Specifically with respect to the fields of humanities and social sciences, Sida focuses on sustainable development, particularly in economic and social development and environmental protection. There is increasing recognition of the role of the social sciences in the developmental process. The debate on sustainable development has identified three pillars to which humanities and social sciences are being called upon to contribute: economic development, social development, and environmental protection. There is, therefore, growing acceptance of the need to integrate behavioural science components into programs of a technical nature.

The above situation constituted the entry point of Sida's current preoccupation with support to the social sciences. There are currently few African universities that have developed strong behavioural research capacity. Independent research in the social sciences has, again with donor support, been developed and executed through research councils and regional networks. Sida has continued to play an important role at this level. So far, the main research focus in the area of social sciences include democracy and human rights, peace and conflict research, gender and social development, growth strategies and economics, poverty issues, and environmental economics. Within the humanities, Sida support has focused on archaeology and on those aspects that address culture and development. For the social sciences, Sida support has traditionally been channelled through regional cooperation bodies that, in turn, have extended support to researchers through specialized and targeted training and small research grants.

[2] This input to the work of the team is by Oliver S. Saasa.

2.2 Networks and Programs

This evaluation of the humanities and social sciences component of regional research programs/networks in Africa focused on the following institutions:

- The African Economic Research Consortium (AERC) based in Nairobi, Kenya.
- The Council for Development of Social Science Research in Africa (CODESRIA), based in Dakar, Senegal.
- The Organization for Social Science Research in Africa (OSSREA) based in Addis Ababa, Ethiopia.
- The African Technology Policy Studies Network[3] (ATPS) based in Nairobi, Kenya.
- The Research Programme for Sustainable Use of Dryland Biodiversity (RPSUD) based at the National Museums of Kenya, in Nairobi, Kenya
- Union for African Population Studies (UAPS) based in Dakar, Senegal.

These institutions/programs are briefly described below.

2.2.1 The African Economic Research Consortium (AERC)

The African Economic Research Consortium (AERC) was established in July 1988 with the primary objective of strengthening local capacity for economic policy research in Sub-Saharan Africa (SSA). To meet this objective, three modalities are employed: thematic research, collaborative research, and training programs. Thematic research serves as the main vehicle for capacity building to the extent that it networks African researchers and, in the process, enhances their research skills through the use of peer review mechanisms and the use of resource persons. Small grants are awarded mainly to junior researchers from both the policy institutions and academia and principally cover MA programs as well as a limited number of PhDs. Methodological workshops also are arranged to improve the research skills of the young researchers. These are complemented by bi-annual thematic research workshops that aim to secure quality assurance through, inter alia, more direct interaction among researchers. To the extent that these workshops bring together researchers[4] and policymakers from the network of institutions in Africa, ownership of the processes is enhanced and the principles of collaboration and partnership improved. The AERC research program revolves around four thematic areas:

- Poverty, income distribution, and labour market issues.
- Macroeconomic policies, investment, and growth.
- Finance and micro/sectoral issues.
- Trade, regional integration, and political economy issues

As of mid 2006, more than 300 refereed research papers were published as a result of the thematic research.

Collaborative research, in turn, serves as AERC:s main vehicle for the production of policy-relevant research. Important policy-relevant research topics are selected and senior researchers are brought in from both Africa and elsewhere to work on these.

The primary aim of the training component of AERC activities is to augment the existing pool of economic researchers and policymakers in SSA using three strategies:

[3] The author Oliver Saasa is a member of the board of ATPS.
[4] Members of the network are departments of economics in 21 African universities in 16 countries.

- Collaborative MA program for Anglophone Africa and involving 21 universities.
- Collaborative PhD program for SSA involving eight universities, two in each subregion of Africa.
- Joint facility for electives involving the facilitation of residential facility for both programs above, and brings students and lecturers together form all over SSA.

As part of its communications and outreach activities, AERC has established specifically targeted interventions for its various categories of stakeholders. First, for policymakers, executive summaries are produced and disseminated to them continent-wide through a number of vehicles that include senior policymaker seminars, national policy workshops, targeted dissemination packages, and the Network's website to which publications are posted. Second, for the Francophone countries AERC has developed a special French website window, and simultaneous translations are conducted during its meetings/workshops. Some publications are also translated into French. Third, for AERC Governance bodies, corporate papers/reports are produced, in addition to the institutional website. Fourth, economists are targeted through the website where research papers/reports are posted and where the on-line library is accessible. Fifth, civil society is targeted through the dissemination of special packages tailor-made for them. The media outreach has also proved to be an important medium of information dissemination for this category of clients.

Policy dialogue is another aspect that AERC has addressed. National policy workshops that showcase AERC research findings are held frequently. The aim is to inform policy-making, obtain feedback on policy relevance of AERC research, and indicate policy research issues of interest to policymakers. The aim has been to share and deliberate on the findings of AERC research with a view to becoming better informed of the need for evidence-based policy-making.

In 2002–04, Sida support to AERC was SEK44 million (US$1= 7.19 SEK—November 2006). This support targeted the institution's core programs that include support to thematic research and collaborative regional Masters and PhD programs. In addition, Sida supports AERC:s research programs on poverty, income distribution, and labour market issues, and a program on growth. Sida is a member of the AERC Board and a Sida representative sits on the organization's Executive Committee.

Box 1: Objectives of CODESRIA

- Promote and facilitate research and knowledge production in Africa using a holistic, multi-disciplinary approach. In this connection, the Council is committed to the goal of combating the fragmentation of knowledge production, and the African community of scholars along various disciplinary and linguistic/geographical lines.
- Promote and defend the principle of independent thought and the academic freedom of researchers in the production and dissemination of knowledge.
- Encourage and support the development of African comparative research with a continental perspective and a sensitivity to the specificity of development process in Africa.
- Promote the publication and dissemination of the results of research undertaken by African scholars.
- Strengthen the institutional basis of knowledge production in Africa by proactively engaging and supporting other research institutions and their networks of scholars within its programs of activities. As part of this goal, the Council also actively encourages cooperation and collaboration among African universities, research organizations, and other training institutions.
- Encourage inter-generational and gender-sensitive dialogue in the African academy as a further investment of effort in the promotion of awareness of and capacity in the use of different perspectives for knowledge production.
- Promote contacts and dialogue between African researchers and researchers on Africa elsewhere in the world, as well as interaction between the Council and similar international organizations.

2.2.2 The Council for Development of Social Science Research in Africa (CODESRIA)

CORESRIA was established in 1973 as an independent Pan-African social science research body and is currently active in 38 African countries. The objectives of CODESRIA are to promote the production of research and knowledge in Africa in the field of social sciences (Box 1). The Council uses a multidis-

ciplinary approach to the realization of this. A related objective is to strengthen the publication and dissemination functions to reach a wide African audience. CODESRIA members include African research institutions, social science faculties, professional organizations, and individual researchers. The organization strives to promote the cultivation of independent thought among the African community of scholars. It also encourages comparative and joint research effort. Collaborative research between African scholars and those from outside the continent is encouraged.

The CODESRIA Documentation and Information Centre (CODICE), collects, processes, and disseminates information pertaining to the social sciences. It provides documentary support and information to CODESRIA research programs, African researchers, African universities, research and training institutes as well as to African governments and their agencies. CODICE also exchanges publications with several local, regional and international organizations, across Africa, Asia, Europe, and North and South America. The resources of CODICE comprise books and periodicals as well as numerous reference works, reports, conference papers, press dossiers, theses and dissertations.

In 2002, the General Assembly of CODESRIA redefined the organization's priorities and following this, the Scientific Committee, in liaison with the Executive Committee, formulated the core research agenda for the 2005–07 period (Box 2). The research agenda is being implemented through the organization's core research activities that are structured under national, multinational, and transnational Working Groups as well as Comparative Research Networks.

Box 2: Core CODESRIA Research Agenda: 2005–2007

- Health, politics and society in contemporary Africa.
- Higher education in Africa: Crisis, reform, transformation.
- Reforming the African public sector.
- The changing political economy of land in Africa.
- Africa and the challenges of globalization.
- The popular arts, identity and culture in contemporary Africa.
- Religions and religious movements.
- Africa in the international global system.
- Conflict and reconstruction in Africa.
- New institutions of accountability and justice in Africa.
- Settlers, natives, and citizenship in Africa.
- State, governance and development in Africa.
- Colonialism, customary law and identity formation in Africa.
- Race, ethnicity, and gender in the struggle for fights and justice.
- Migration dynamics, including refugees and internally displaced persons.
- The diaspora and diaspora linkages.
- Transportation and transport systems in Africa.
- ICT revolution and sociopolitical change in Africa.
- Changing rural-urban linkages in Africa.
- New regionalist impulses and dynamics in Africa.
- Africa and the new imperialism.

Research organizations on the continent and beyond are encouraged to team up in the implementation of collaborative research. Training programs, involving small grants for thesis writing have remained part of CODESRIA's portfolio of activities. This includes research methodological seminars that target postgraduate students, annual writing workshops, mentoring, African scholars exchange program, African social science faculty seminars, and annual conferences for deans of faculties of social sciences.

Sida's support to CODESRIA has been significant and dates back to 1977. During 2002–04, Sida support was SEK57 million (and SEK187 million was disbursed by Sida/SAREC to CODESRIA

between 1977 and 2004). Besides Sida, 21 other donors that include IDRC, CIDA, Ford Foundation, NORAD, DANIDA, and DINIDA support CODESRIA. Of the 22 main funders, Sida is the single largest contributor to the CODESRIA budget. Other targeted activities include special programs, institutional development, and the organization's administration and governance.

2.2.3 The Organization for Social Science Research in Africa (OSSREA)

OSSREA was established in 1980 with membership drawn from social scientists in East Africa working in universities and research establishments. Its activities were extended to Southern Africa by 1993. Apart from its regional headquarters in Addis Ababa where it is registered as a regional non-governmental organization, it has chapters in 13 countries. The organization aims to promote research and training in the social sciences to generate knowledge that is essential for informed policy-making for the improvement of economic and social welfare in Africa. Among the objectives of OSSREA are the following:

- Encourage and promote interest in the study of, and research in, the social sciences in Eastern and Southern Africa.
- Promote collaborative research and facilitate scholarly exchange of ideas and publications between individuals and institutions engaged in the social sciences.
- Promote the training of African scholars in the study of, and research in, the social sciences and to encourage the establishment of institutions dedicated to that goal.
- Establish a special fund to be used for purposes of providing research grants and training fellowships as are consistent with the objectives of OSSREA.
- Promote dialogue and interaction between social scientists and policymakers in Eastern and Southern Africa.
- Promote good relations and cooperation between social science researchers in Eastern and Southern Africa and African development institutions.

Based on these objectives, OSSREA's activities include research competitions for young scholars, senior scholars research grants program, research workshops at the national and regional levels, publication and documentation, and networking. Sida/SAREC provides a core grant to OSSREA covering mainly salaries and publications, and contributes, together with other donors[5], toward the cost of junior research competitions and the Senior Scholars Research Grant. Sweden also contributes to the Dryland Husbandry Programme that is linked to OSSREA.

2.2.4 The African Technology Policy Studies Network (ATPS)

ATPS started as a secretariat of the International Development Research Centre (IDRC) in 1994. It became autonomous in October 2001. The network is managed and directed by an international Board of Directors comprising African and non-African scholars. ATPS is a multidisciplinary network of researchers, policymakers and other end-users interested in the generation, promotion, and strengthening of innovative technology/industrial policies in Africa. It operates through national chapters in 23 countries with an expansion plan in place to cover the entire Sub-Saharan Africa. The main objectives of ATPS are:

a Capacity building and enhancement for technology/industrial policy research, formulation and implementation.

b Generating a critical mass of knowledge on technology policy issues.

[5] The other main donors are NORAD, the Netherlands, and IDRC.

c Fostering networking and collaborative research and ending the isolation of researchers.

d Strengthening the curricula in polytechnics and schools of engineering for greater relevance.

e Dissemination of research results to the policymakers, legislators, the organized private sector, civil society, mass media and farmers groups through publications, dialogue and advocacy.

The network provides research grants to individuals and institutions to carry out research on issues of science and technology policy in sub-Saharan Africa. The activities covered by ATPS in its network are listed in Box 3.

Box 3: ATPS Regional Activities

1. Impact of new and emerging technologies such as:
   - Information and communication technologies and their potential contribution to development
   - Biotechnology
   - Material technology on science and technology development in Africa
2. Health technology policies
3. Technology issues for small and medium-sized enterprises, and impact of trade on science and technology
4. Technological change and innovation
5. Review of curriculum in technical and engineering institutions
6. Globalization and technological capabilities and change in Africa
7. Gender issues in science and technology policy
8. Foreign Direct Investment (FDI) and technology transfer
9. World Trade Organization (WTO) issues, such as capacity building and technological capability

ATPS now commissions scholars within and outside Africa to conduct research on technology policy issues. One avenue of disseminating this information to policymakers in Africa is through the Technopolicy Briefs.

In November 2005, Sweden and ATPS entered into an agreement, amounting to SEK5,400,000, covering a three-year period (2005–2007) and targeting activities that include regional research projects, individual research grants and institutional support to the Network's national chapters. The agreement ear-marks amounts to all the specific sub-activities. Currently, the other donors are the International Development Research Centre (IDRC), the Royal Dutch Government, The Finnish Embassy, Centre for Rural and Agricultural Cooperation (CTA, Netherlands), African Development Bank (ADB), and the Rockefeller Foundation. In the past, ATPS supporters included the Carnegie Corporation of New York, the World Bank, the OPEC Fund, Ford Foundation, Coca-Cola Eastern Africa, and UNESCO.

2.2.5 The Research Programme for Sustainable Use of Dryland Biodiversity (RPSUD)

RPSUD is a regional program involving four institutions in three Eastern African countries: National Museums of Kenya (NMK), Addis Ababa University and the Institute of Biodiversity Conservation and Research, and the University of Dar Es Salaam, Tanzania. The program was initiated as a collaborative effort among these countries with the financial support from Sida/SAREC. The overall objective of RPSUD is "to provide a framework for biodiversity research and conservation for sustainable development in semi-arid and arid lands through support and cooperation in the fields of research and training, as well as enhancement of institutional capacities of the participating institutions." The specific objectives of the program are to:

- Promote a research-driven sustainable management of dryland biodiversity in the countries of Eastern Africa.
- Build and enhance institutional research capacity.
- Support training and develop curricula that are dedicated to and address dryland biodiversity issues.

- Undertake research in dryland aimed at generating information on the status, ecology, and systems dynamics, the understanding of which leads to sustainable use of dryland resources.
- Promote regional and institutional cooperation and networking in multi-disciplinary research.

In the implementation of the regional program, NMK plays the leading role by hosting the regional coordinating office and interacting with donors, while the AAU is the host university that gives a specialized MSc course in biodiversity. Although the overall management of the program is done by an Executive Committee made up of two representatives from each participating country, the day-to-day program-related activities are handled by the Regional Coordinator and staff based in NMK. The program includes a small-grant research scheme.

2.2.6 Union for African Population Studies (UAPS)

The Union for African Population Studies (UAPS) is a scientific, Pan-African, nonprofit organization that was created at the initiative of the UN Economic Commission for Africa (ECA) in March 1984. The main aim of the Union is to encourage the scientific study of population in Africa. To accomplish this mission, the Union has adopted a strategy that involves working on all population issues, including health, education, family and household, social organization, migration, environment, demographic data collection and analyzes, and research methodology. This is done through research, training, and information exchange. To reach this objective, UAPS is expected to encourage collaboration among specialists of population issues in all African countries, to facilitate the conduct of studies and research on key population issues in Africa; ensure the broadest dissemination possible of scientific information concerning population problems in Africa, and to popularize interest in population issues.

UAPS is open to all African or Africanist researchers and to all institutions working in the field of population and development in Africa. It currently has a membership of about 1,200 members from Africa, Europe, North America, and Asia. There are individual and institutional members, the former being drawn mainly from universities, research centres, and other institutions of higher learning. UAPS is governed by the General Assembly, which is composed of all paid-up members and which meets every four years. A Secretariat manages the activities of UAPS. The Union runs a small grants program that was set up in 1986, aimed at helping junior African specialists to strengthen their capability to design and carry out research projects on population and development issues.

2.3 Analysis of Findings

2.3.1 Developmental Relevance

In assessing the appropriateness of Swedish support to regional and subregional research networks in Africa in the fields of arts and social sciences, one needs to appreciate the overall objective of Swedish development cooperation, which is to create conditions for poor people to improve their living conditions. This objective clearly indicates that it is the people themselves who should be the main actors in driving development. But for people to do this meaningfully, they need knowledge to analyze development problems, to identify constraints and opportunities, to consider various available options and making informing choices, and knowledge to assess progress and shortcomings, and to make necessary changes and adjustments. In this regard, Sida's research cooperation is directed to empowering poor people and poor countries by creating conditions for acquiring and utilization of knowledge for development. Support to research is underpinned by the twin perspectives of Sweden's Policy for Global Development – the perspectives of the poor and the human rights perspective. The Swedish strategy in this regard is to achieve the empowering of people with knowledge through the development of research and research capacity in developing countries and regions.

To achieve the strategy of the development of research capacity and the generation and use of knowledge, Sida employs a number of means and channels. They include:

- Strengthening national capacity for research (postgraduate studies, development of higher education and research policy, development of management capacity in higher education, and provision of research infrastructure such as libraries, laboratories, IT systems, and research funds).
- Strengthening regional and subregional research networks and organizations through support for research, training, and networking.
- Global and Swedish research that can contribute to development and that targets problems and challenges faced by developing countries. This includes Sida support through WHO and the UN system.

Swedish regional research support is organized around four thematic areas: social sciences and humanities[6], natural sciences and technology[7], health[8], and environmental sciences and natural resources.[9] It is channeled through appropriate regional organizations and research networks in Africa. This particular report focuses on Swedish regional research support to social sciences and humanities.

One important aspect of the networks that are assessed in this report is that they are all multifunctional in character and possess different functions that they strive to achieve. All the networks covered are engaged, though at different degrees, in some form of research function and are mandated to include networking, education, training, publications, and dissemination of their research activities. Most of them give grants to different categories of researchers ranging from junior scholars to post-doctoral work. The Networks' degree of collaboration with other similar organizations is generally limited, an area that evidently could benefit from further exploration. Notwithstanding this, an important attribute of the examined networks is that a number of them, apart from their regional connections, are simultaneously building upon opportunities for stronger collaboration with institutions in the North, mainly through research collaboration under existing bilateral research cooperation arrangements.

[6] Under the social science and humanities, support covers such programs as democracy, human rights, governance, gender, economics, environmental economics, social development, arts, and history. The main organizations and networks supported through the social science and humanities program include the Council for the Development of Social Science Research in Africa (CODESRIA), the Organisation for Social Science Research in Eastern and Southern Africa (OSSREA), the African Economic Research Consortium (AERC), African Academy of Sciences, the Africa Technology Policy Studies Network, and the Centre for Environmental Economic Policy in Africa (CEEPA). Since 2005 Sida/SAREC has supported Africa/Asia/Latin America research collaboration in the social sciences that involves three research networks from Africa. The tri-continental collaboration is expected to further strengthen African social science research through joint collaborative research, joint training, and exchange of experiences.

[7] In natural science and technology, Sida supports research in the basic sciences, energy, climate, and environment. Under this category, regional organizations in Africa that receive Swedish support include Biotechnology, Biosafety, and Biopolicy in East Africa (BIO-EARN), and African Energy Policy Research Network (AFREPREN).

[8] Under the health program research in child health, sexual and reproductive health, tropical and infectious diseases, HIV/AIDS and STD is supported. Much of the support to health research is channeled through global organizations such as WHO and through research institutes in Sweden and in some countries in Africa. Regional organizations supported by Sida include International Network of Field Sites with Continuous Demographic Evaluation of Populations and their Health in Developing Countries (INDEPTH). INDEPTH has 20 sites in Africa for collecting and analyzing demographic and health data, East, Central and Southern African Organisation for Obstetrics and Gynaecology Society (ECSAOGS) which organizes meetings of researchers on sexual and reproductive health. Sida also supports regional networking of medical faculties in five countries (Ethiopia, Mozambique, Rwanda, Tanzania and Uganda). Support is also provided to international and global organizations with local branches in Africa. These include the Multilateral Initiative on Malaria (MIM) based in Tanzania, the African Aids Vaccine Program facilitating research cooperation between researchers in Africa, and the Council for Health Research for Development (COHRED) assisting African countries to develop health research agenda. Research on HIV/AIDS is supported through special programs where both Swedish and African researchers receive grants.

[9] Under this program research in marine and aquatic resources, agroforestry, livestock, and crop production is supported. Major regional research organizations supported in these areas include Western Indian Ocean Marine Science Association (WIOMSA), African Research Programme on Sustainable use of Dryland Biodiversity (RPSUD), African Forest Research Network (AFORNET), Lake Victoria Research Initiative (VicRes), and Pastoral Information Network Project (PINEP).

All the analyzed networks seek to be policy-relevant and, consequently, attempt to influence policy formulation. At this level, one of the main difficulties in almost all of them is to establish the extent to which they actually have a positive impact on policy formulation. Notwithstanding this, a few of them have managed to position themselves close to the locus of policy-making. Indeed, in some of the networks, former members have ultimately assumed strategic positions in policy-making bodies. In the light of the above, it is clear that the relevance of the mandates of all the analyzed regional research networks/programs is evident.

2.3.2 Structure

An important consideration in assessing the viability and appropriateness of any system is to look at its organizational structure. There are at least four main types of regional research networks in the social sciences in Africa: regional research associations, regional research organizations, regional research centres, and regional research programs/projects[10]. *First,* a *regional research association* is usually more assembly-like, decentralized and, quite often, loosely defined. Its objective rarely targets research production but, instead, tends to link like-minded people in some form of a network. Consequently, a regional research association is extroverted in character and more inclusive in membership. Its dynamism is often measured in terms of the extent of its membership. Examples of this type of regional network in Africa are the Union of African Population Studies and the Association of African Political Science. Because of their non-specific deliverables, regional research associations have tended to attract less donor funding than their counterparts (described below).

Second, regional research organizations are usually formalized and relatively more hierarchical, focused, and result-oriented. They usually perform many functions simultaneously, focusing mainly on research production, networking, dissemination of information, and training. Their effectiveness is usually measured less in terms of the extent of their membership, and more on their ability to produce research results, research capacity building, research networking, education and training, and disseminate research output to various stakeholders, particularly policymakers. Examples of regional research organizations in this assessment include CODESRIA, OSSREA, and ATPS. Due to the clear focus of their activities and their potential to network with extra-regional bodies, including those in the North, regional research organizations, when well managed, have had better success in mobilizing donor resources.

Third, there are *regional research centres* that, when seen as regional networks, refer to an organization/structure that is established principally to undertake research and disseminate research results. In addition to this, a host of functions, very much linked to the research functions, are also performed. These include publication, dissemination of information, and education and training. Networking, though often included among the research centres' mandate, usually assumes a subsidiary position. Their structures tend to be overly formalized, centralized and autonomous, and are supported by full-time researchers. The African Centre for Technology Studies (ACTS) is a good example of a research centre.

Fourth, there are *regional research programs or projects.* The Research Programme for Sustainable Use of Dryland Biodiversity (RPSUD) in Kenya is an example of a regional research program. Generally, the structure of regional programs/projects is decentralized and horizontally structured, and their institutional structures are rarely autonomous. One of the institutions involved in the program/project is usually given a coordination responsibility that includes financial management. By its nature, a regional research program/project is typically multifunctional, although it can be more specialized and focused in its operations, targeting clear research results and capacity building. Consequently, regional research programs/projects are heavily biased toward research and well-targeted capacity-enhancing training. Networking is usually one of its primary objectives and, hence, institutions from more than one country are involved in a partnership arrangement. Cooperation with the North is often an important feature

[10] See Soderbaum, F., Understanding regional research networks in Africa, Sida Studies in Evaluation 99/3, Stockholm, 1999.

involving research collaboration. Because of this, regional research programs/projects hold great promise in building, through North-South cooperation, national, regional and international research capacities. Examples of regional research networks in Africa by category are described in Box 4.

Box 4: Examples of regional research networks in Africa

Regional research associations

1. African Academy of Science (AAS)
2. African Association of Political Science (AAPS)
3. Association of African Universities (AAU)
4. Union for African Population Studies (UAPS)

Regional research organizations

1. African Economic Research Consortium (AERC)
2. African Energy Policy Research Network (AFREPREN)
3. Council for the Development of Social Science Research in Africa (CODESRIA)
4. Organisation for Social Science Research in Eastern and Southern Africa (OSSREA)
5. African Technology Studies Network (ATPS)
6. Southern African Political Economy Series (SAPES)

Regional research centres

1. International Centre for Insect Physiology and Ecology (ICIPE)
2. International Livestock Research Institute (ILRI)
3. Southern African Centre for Co-operation in Agricultural Research (SACCAR)
4. West Africa Rice Development Association (WARDA)

Regional research projects and programs

1. Education of Girls and Women in Africa (EGWA)
2. Forestry Sciences Capacity Building Project (FSCB)
3. Gender Research and Urbanisation Planning (GRUP)
4. Gender, Urbanisation and Environment (GUE)
5. Marine Science Co-operation Programme (MARINE)
6. Pastoral Network Information Programme (PNIP)
7. Regional Research Collaboration in Reproductive Health in Africa (REPH)
8. Soil and Water Conservation Programme (SWCP)
9. Urban Origins in Eastern Africa (UOEA)
10. Women and Law in East Africa (WLEA)

Overall, the structure of the networks now being supported by Sida/SAREC in Africa in Humanities and Social Sciences accommodate a positive relationship. Almost all the networks have a management structure is based, in varying degrees, on the principle of representation of all the main stakeholders, mainly the constituent regional and/or sub-regional universities and research establishments.
The Council for Development of Social Science Research in Africa (CODESRIA) and the African Economic Research Consortium (AERC) are quite large and well organized, with elaborate structures that position them well in addressing their respective mandates. Similarly, the structure of the Organization for Social Science Research in Africa (OSSREA), with its 21 national chapters, the Executive Committee and the Congress, is organizationally positioned to discharge its functions with the backstopping of its headquarters/Secretariat in Addis Ababa. Although the Congress (that meets once every three years) remains the organization's highest decision-making body, the Executive Committee, through staff at OSSREA Headquarters, has been in charge of the implementation of the policies and resolutions that are adopted by the Congress.

The African Technology Policy Studies Network (ATPS), albeit smaller than the three above, has also put in place a solid structure that has enabled it to perform its mandate. With its fairly thin structure, ATPS is managed and directed by an international Board of Directors comprising African and non-

African scholars. As in the case of OSSREA, ATPS's 23 national chapters have assumed a quasi-autonomous status through their registration in their respective countries. ATPS expansion plans aim to cover the entire Sub-Saharan Africa.

RPSUD is housed at the National Museums of Kenya although it has a regional mandate. The Union for African Population Studies (UAPS) based in Dakar, Senegal, that, organizationally, has continued to suffer from structural frailties and a serious financial handicap. Presently, UAPS has only one professional (the Executive Director), and Sida has suspended support. The restructuring of UAPS and the diversification of its mandate are urgently required.

2.3.3 Efficiency and Effectiveness

In assessing the *efficiency* and *effectiveness* with which the identified institutions have carried out their mandates vis-à-vis the role of Sida/SAREC, it is important to be careful regarding how these terms are defined. Although efficiency relates to the degree to which the available resources (financial, human and technical) are applied for the achievement of the stated goals and objectives, effectiveness goes beyond efficiency considerations. They help define the degree to which resources are used prudently but, also whether the stated objectives were, in the first place, appropriate for achieving positive results. At this level, positive results go beyond the realization of outputs to include the actual outcomes (the fulfillment of the anticipated results). In other words, when one assesses the effectiveness of a given intervention, it is important to take note of both the efficiency gains and, more importantly, the extent to which the desired *impact* has been realized.

In light of the above, while it is relatively simpler to measure the efficiency of regional research networks/programs, it is difficult to determine their level of effectiveness. One indication of effectiveness could relate to the degree to which regional research networks/programs do influence policy in their specialized field. In terms of performance, this assessment showed that the different networks have varying capacities to ably undertake the diversity of their mandates. Those with more resources from donors, however, appear to perform better than those with fewer resources. Most of the analyzed networks enjoy a relative autonomy from external actors. Dependence on foreign aid is phenomenally high for the average networks assessed however, an aspect that has important implications for both their effectiveness and sustainability.

One can derive some important inferences to the 'possible' positive impact of some of the institutions examined in terms of their effectiveness. From the analysis, two networks seem to stand out as providing great opportunities for effective discharge of their mandates. These are AERC and CODESRIA. With its principal objective of "strengthen[ing] local capacity for conducting independent, rigorous inquiry into problems pertinent to the management of economies in sub-Saharan Africa," AERC has managed to put in place a structure and operational environment that has allowed for truly independent training and research activity. All this happens within its threefold mandate that focuses on: (a) enhancing the capacity of locally based researchers to conduct policy-relevant economic inquiry; (b) promoting retention of such capacity; and (c) encouraging its application in the policy context. When one looks at the magnitude of the AERC training activities, it is clear that the two premises upon which the Consortium's mission rests[11] are obviously being respected.

As a networking organization, AERC has also managed to bring together many regional bodies and, in the process, has succeeded, to a large extent, to link individuals and institutions in a knowledge-sharing framework. Furthermore, AERC Training Programme has brought together a network of 27 universities in 20 countries in a collaborative approach to both MSc and PhD training. AERC has therefore been quite effective in achieving its goals at the level of networking (see Box 5).

[11] These are that (a) development is more likely to occur where there is sustained sound management of the economy, and (b) such management is more likely to occur where there exists an active, well-informed group of locally based professional economists to conduct policy-relevant research.

Box 5: AERC Network

Centres

The Economic and Social Research Foundation (ESRF) – Tanzania, Economic Policy Research Centre (EPRC) – Uganda, Centre for Policy Analysis – Ghana, Trade and Industrial Policy Secretariat (TIPS) – South Africa, Macro Economic and Financial Management Institute (MEFMI) – Zimbabwe, Centre de Recherche en Economie Applique (CREA) – Senegal, Institute of Statistical, Social and Economic Research (ISSER) – Ghana, Nigerian Institute of Social and Economic Research (NISER)- Nigeria, National Centre for Economic Management and Administration (NCEMA) – Nigeria, Programme de Troisième Cycle Inter-universitaire en Economie (PTCI) – Burkina Faso, Botswana Institute for Development Policy Analysis (BIDPA) – Botswana, South African Trade and Research Network (SATRN) – Botswana, The Namibian Economic Policy Research Unit (NEPRU) – Namibia, Kenya Institute for Public Policy Research and Analysis (KIPPRA) – Kenya, Centre Ivoirien de Recherche Economique et Sociale (CIRES) – Côte d' Ivoire.

Universities

University of Benin (Nigeria), University of Botswana, University of Cape Coast (Ghana), University of Cape Town (RSA), University of Cocody (Cote d'Ivoire), University of Dar es Salaam (Tanzania), University of Ghana, University of Ibadan (Nigeria), University of Liberia, University of Namibia, University of Nairobi (Kenya), University of Malawi, University of Mauritius, University of Swaziland, University of Sierra Leone, University of Witwatersrand (RSA), University of Yaounde II (Cameroon), University of Zambia, University of Zimbabwe, Addis Ababa University (Ethiopia), Egerton University, (Kenya), Eduardo Mondlane University (Mozambique), Kwame Nkurumah University of Science and Technology (Kumasi, Ghana), Kenyatta University (Kenya), Moi University (Kenya), Makerere University (Uganda), National University of Lesotho.

The Consortium is itself a network of 12 funding agencies (including Sida) that supports a commonly agreed program of research activities, dissemination, and training of future researchers. This has provided a critical mass of support for a set of coordinated activities with shared overheads. The Consortium's Research Program has also brought together individual researchers in the region to undertake research on selected themes. As a measure of effectiveness, this approach has been accepted on the continent to have facilitated the bringing together of professionals in economics, thus alleviating professional isolation, encouraging exchange of experiences, and creating peer pressure for enhancing quality. Quality assurance of AERC activities has been achieved through a dynamic support system that features peer review and technical and literature backup. Through its well-developed website, the Consortium is linked to other resource centres worldwide. Methodology workshops, an important feature of AERC activities, have continued to sharpen network members' research skills and expose them to relevant developments in economics.

The CODESRIA research program has provided an important platform for social scientists in Africa to undertake policy-relevant research work and to influence policy on the continent. CODESRIA's core research activities are structured around, and organized into, the National, Multinational, and Transnational Working Groups as well as the Comparative Research Networks. CODESRIA's networking function is enhanced by its collaborative research projects that are undertaken in cooperation with other research organizations within and/or outside Africa.

The effectiveness of Sida/SAREC support to regional research networks in the social sciences has to be considered taking into account the role of other donors in the same field. While acknowledging that Sida/SAREC is currently extending support to more than 20 regional research organizations and international centres based in Africa and, hence, contributing to the development of this field, there are several other donors that are also on the ground doing more or less the same work. It is noteworthy that, apart from Sweden, there are many research cooperation agencies from countries that support research in Africa (Norway, Finland, Denmark, UK, the Netherlands, and Canada). They regularly meet (though informally) to share their experiences regarding research support. The form and degree of support to research networks in Africa varies from one donor to another. Sida assistance is usually multi-year, often targeting 'core support,' thus, allowing African research organizations to freely set their agenda and conduct research on a more predictable financial basis. Many of the other agencies (with the exception of those from the Nordic countries), on the other hand, offer more project-oriented support of shorter duration. The World Bank extends support to research in Africa, mainly through

research project support. Increasingly, private foundations are also consolidating their research support in the social sciences in Africa, including Ford Foundation, Carnegie Foundation, Rockefeller Foundation, and McArthur Foundation. The challenge for effective coordination among the donors and agencies supporting research is real, as is the need to strategically link bilateral and regional support to research to achieve synergy and complementarity. There have been several regional initiatives that are emerging and that promise to impact positively on the development of research and research capacity on the continent, particularly through the New Partnership for African Development (NEPAD).

In addition, major universities and research centres in countries such as South Africa and Nigeria, which are generally independent of donor support, also play an important role in shaping and advancing the African research landscape. In this respect, as Sida/SAREC positions itself to better support research in Africa, the strategy adopted must necessarily take into account existing strong national research institutions as potential regional and subregional partners.

2.3.4 Sustainability

Sustainability of an organization refers to its ability to survive indefinitely without a serious threat of significant reduction in its ability to fulfill its mandate. Sustainability can be affected by a number of factors that could be internal and/or external to it. The availability of resources, both human and financial, is particularly important in securing the sustainability of organizations. For those organizations that overly depend on external assistance, a significant reduction in this kind of input could seriously endanger their survival and/or sustainability. Similarly, the inability of an organization to alter its priorities and/or structure to accommodate changing circumstances could threaten its continued discharge of its mandate, hence, its sustainability. In fields as dynamic as social sciences, the degree to which the structures and research priorities of an organization are responding promptly and decisively to changing challenges would ultimately have a telling effect on its ability to sustainably continue to remain relevant.

In light of the above, our study has revealed a number of realities with respect to the selected regional research networks. *First,* almost all the studied networks are significantly dependent on donors as the main source of financing their programs/activities. In some cases, a handful of donors dominate the support portfolio, whereas in others external support is quite diversified. AERC is perhaps the most heavily dependent on donors. Indeed, AERC is unique in the sense that it is actually a consortium of donors themselves[12] rather that of African research establishments. To this extent, one can say that AERC:s sustainability is overly dependent on the very donors that provide the resources. The diversity of donors and their high profile, however, suggests that a reasonable degree of assurance exists in terms of the credibility of the supported programs. Although the AERC Board of Directors is predominantly drawn from the donor group, the body that is principally in charge of setting the agenda (the Program Committee) is largely African. To this extent, it can be concluded that AERC activities are principally guided by Africans and Africanists. The diversity of its network within Africa further gives assurance that agenda setting of the Consortium is mainly influenced by the challenges that are felt by the continent itself. Considering the performance record of EARC, it can be concluded that the sustainability of AERC is beyond question.

AERC:s sustainability is also enhanced by its sensitivity to the changing circumstances within which it provides its services. Initially, AERC focused primarily on macroeconomic research, targeting structural adjustment policies. This was the time when dialogue with the World Bank and IMF on structural adjustment policies required the development of a cadre of professionals that comprehended the policy

[12] The financial supporters are the Department for International Development, International Development Research Centre, The MacArthur Foundation, Ministry of Foreign Affairs, Denmark, Ministry of Foreign Affairs, France, Ministry of Foreign Affairs, Netherlands, Norwegian Agency for Development Cooperation, Rockefeller Foundation, Swedish International Development Agency, Swiss Agency for Development and Cooperation, US Agency for International Development, The World Bank.

regime at the time. With a shift toward much broader challenges of institutional reforms, as well as the need to address the challenges of poverty eradication under the Poverty Reduction Strategy Papers (PRSPs), AERC:s training and research agenda had to be broadened. This development has secured its continued relevance and, hence, enhanced support from its cooperating partners.

Another regional research network whose sustainability has generally been enhanced is CODESRIA. With a sizeable contingency of donors behind it, CODESRIA has showed considerable resilience in adjusting to changing circumstances, particularly after its credibility was under threat. Following considerable expansion in its activities during the 1990s, weaknesses in assuming the new responsibilities became apparent, especially in areas of financial and administrative management. Following intensive review of its performance over the 1998 to 2001 period, CODESRIA recognized that changes in its operational systems were imperative. The strategic moves that followed proved that the organization's survival instinct, hence its sustainability, is strong. The post-2002 period witnessed internal institutional reforms of CODESRIA that included the restructuring and refocusing of its programs so as to restore its earlier position of the leading independent social science research institution in Africa. The backlog of approved small research grants was also cleared, thanks to the improved program management, monitoring, and outreach activities. Interest in comparative research activities was also enhanced.

Under new and evidently visionary management, CODESRIA has expanded its program reach both geographically and thematically, showing that the organization's capacity to transform itself is resolute. The Lusophone Africa Initiative, for example, has resulted in the consolidation of the organization's presence in Portuguese-speaking African states. It is noteworthy that CODESRIA has also developed a comprehensive communication strategy that targets improvements in the scientific content of its publications and their dissemination. The strategy also aims to popularize its research outputs to as many researchers, policymakers, and civil society activists as possible. This singular strategy has enhanced the CODESRIA's visibility on the continent as one of the leading regional networks in social sciences.

CODESRIA's responsiveness to changing circumstances has further been demonstrated by its decision to bring into its network more younger researchers following the introduction of new programs. The targeting of female researchers has added credence to the growth image of the organization as a gender-sensitive regional body that responds positively to the demands from its network members[13]. Since 2001, the CODESRIA Gender Programme and the Child and Youth Studies Programme were strengthened and elevated to the status of core activities. CODESRIA's work at this level can be likened to the work of the Research Programme for Sustainable Use of Dryland Biodiversity (RPSUD) that administers a competitive small grant research scheme. The latter is a unique approach not only to the generation of data and information in dryland biodiversity, but also in attracting younger scientists and professionals to the research opportunities that are associated with dryland areas. RPSUD has so far produced more than 20 research papers, which are useful additions to the needed knowledge for policy-making on dryland biodiversity and the communities that survive on them.

To reduce extensive dependence on donors (currently standing at 23 agencies with Sida as the flagship donor) and to secure its sustainability in the event of a significant reduction in external support, CODESRIA has a program of diversifying its revenue base by recently launching an Endowment Fund.

Another regional network that holds promise at the level of sustainability is the African Technology Policy Studies Network (ATPS). Though relatively new on the scene, the Network is emerging as a regional 'powerhouse' that is dedicated to research and analysis of issues pertaining to the scientific and technological development of Africa, taking both the behavioural and scientific dimensions. Evolving through a learning process under the administrative oversight of the International Development Research

[13] CODESRIA recently recruited a senior officer to be in charge of the coordination of its gender program,

Centre (IDRC), ATPS has proven over the years, through its long-term program of work, to provide researchers in Africa an opportunity to do good work with the support of an increasing number of cooperating partners. Operating through its 23 national chapters, with an expansion plan in place to cover Sub-Saharan Africa, one independent assessment of the Network concluded, thus:

> *"ATPS has successfully made the transition from being a network of loosely connected researchers working on conceptually disconnected themes and issues to one that is organized through better coordinated National Chapters with increasingly coherent research agendas. Most of the National Chapters have developed their strategic plans and research projects on the basis of identified national priorities and needs… There is also pronounced intellectual leadership by the Secretariat. Another major accomplishment of the Network is the number of persons, mainly its teams of country researchers it has trained over the past years. ATPS proposal writing and research methodology training workshops have imparted skills in…African researchers who are now able to engage effectively in technology policy research."*[14]

ATPS has successfully continued to organize region-wide activities around three interrelated functional domains: research, capacity building, and policy outreach and advocacy. With an impressive publication record, derived principally from its sponsored research activities developed around broad themes (including biotechnology, ICTs, globalization and international trade, and human health technologies), ATPS has continued to respond to emerging African challenges. Recognizing the evident capacity limitations in both the African research community and policymakers, capacity building has emerged as a major part of the ATPS priorities, focusing on:

- Building the capacity of network members to engage in the development and implementation of research projects.
- Strengthening the capacity of policymakers to formulate and implement science and technology policies.
- Promoting the integration of science and technology policy issues in the curricula of technical colleges and universities.
- Supporting African students to pursue MSc degrees and technology policy or related areas.
- Promoting private sector and civil society participation in public policy processes on science and technology.

The ATPS agenda complements one of NEPAD's priority areas, which is the development of science and technology on the African continent. Most regional organizations such as the African Union, East African Community, the Southern Africa Development Community, and the Economic Community of West African States recognize the importance of strengthen regional cooperation in science and technology, in general, and in R&D, in particular, with the suggested approach encompassing the creation of centres of excellence. Africa's Science and Technology Consolidated Plan of Action has been developed by NEPAD to serve as a flagship for R&D programs. The Plan of Action is expected to be implemented through networks and consortia of Africa's own centres of excellence. Funding of this initiative is envisaged to be through the pooling of resources of networks and increased financial allocation by member countries to R&D. There are also plans to establish an African Funding Scheme to which a consortium of bilateral and multilateral agencies is expected to contribute. While R&D is traditionally perceived as largely a 'hard sciences' field, there is growing recognition of the behavioural dimension to it, thus justifying the role of social sciences in this. These new developments, which aim to strengthen research cooperation regionally and across diverse disciplines, promise to open new opportu-

[14] Clark, N.G. and Mugabe, J., ATPS: A program and organizational review, Nairobi, August 2002.

nities and challenges. These will have to be taken into account as Sida/SAREC positions itself in an increasingly globalizing world, in which Africa is struggling to occupy its rightful place in knowledge generation, application, and sharing through regional networks. Sida/SAREC has started negotiations with the NEPAD Secretariat to explore potential areas of collaboration. Looking at the mandate of ATPS, it is reasonable to expect that it could serve as an important conduit/partner through which Sida/SAREC could complement the NEPAD effort in the science and technology regional research agenda. Presently, ATPS is exploring industrial country partners that could assist it to effectively become a flagship partner in the advancement of the NEPAD Agenda on Science and Technology. In this regard, it is conceivable that, given its transparent and proven financial management system, ATPS could become an important partner of Sida/SAREC in advancing the NEPAD agenda in this field.

The sustainability of OSSREA in terms of its resource base still requires more attention. It is another regional research network that could benefit from additional financial support at different levels. *First*, one area that requires attention is the strengthening of linkages between OSSREA and policy-makers by way of diversifying the organization's policy briefs. *Second,* considering the fact that the number of universities has increased in eastern and southern Africa, OSSREA needs to expand its resource base to respond to rising demands for its services. The development of an endowment fund similar to that of CODESRIA could be one way of generating, in a more sustainable manner, the needed resources to strengthen OSSREA's capacity to implement its mandate. *Third,* the effectiveness and sustainability of OSSREA would be enhanced when its good publication record and well functioning management system are complemented by stronger local chapters in member countries. Earlier evaluations reported that local chapters are "…very weak and the work of OSSREA too centralized."[15] The strengthening of the capacity of the liaison officers at the local chapters level as well as the scaling up of the publication function of local chapters of the organization, could be one area where Sida/SAREC could enhance its support. Four local chapters have already made significant inroads in the area of publications. *Fourth*, the interaction between researchers from different countries within the OSSREA network needs to be strengthened so as to allow them to become more engaged in the activities of OSSREA. Support for more collaborative inter-country research activities would assist in cementing stronger linkages among the regional network's researchers. By making them more engaged, regional researchers would be enabled to proactively influence the research agenda of this important regional body.

2.3.5 Knowledge Generation, Access, and Utilization

For most regional research networks, one of the important considerations relates to how far opportunities have been facilitated for the effective generation of information of common interest to the members, and how effectively such information is disseminated and utilized for desirable impact. As indicated in the section above on sustainability, most of the studied networks are involved in knowledge generation in terms of both publications and training. They are also involved in equipping young researchers with the knowledge and tools to be able to collect and process data. Through the various forms of training, including at postgraduate level, some of regional research networks examined are increasingly becoming centres of excellence in their own right, as both generators and repositories of policy- and development-relevant knowledge.

Notwithstanding the above, there have been variations in terms of the extent to which the studied networks collaborate with each other. The Research Programme for Sustainable Use of Dryland Biodiversity is involved in regional collaboration to the extent that a single university is used to serve as

[15] Sørbø, G.M. and Ghebray, B., Reviewing OSSREA and its Future (undated). See also A Review of Research Undertaken by the Organization for Social Science Research in Eastern and Southern Africa (anonymous review commissioned by Sida), 1997; Organisation of Social Science Research in Eastern and Southern Africa, in Tostensen, A, Øygard, R., Carlsson, J., & Andersen, R. Building Research Capability in Africa: a Review of NORAD's Assistance to Regional Research Organisations, 1998.

a centre of excellence for its masters program. An Executive Committee with regional representatives is also in place to coordinate the teaching and research work across the east African region. There are, however, no lecturers from the region who participate in the training program. Similarly, there are no research activities involving researchers from the region working as teams, in spite of the express criteria for awarding research grants that give priority to proposals that are submitted by multinational scientists. Thus, the regional character of RPSUD has been insignificant and, consequently, the opportunity missed for researchers to jointly develop and share knowledge. More direct regional collaboration among researchers from the participating regional countries would enhance the benefits from existing regional capacity. Contrasting RPSUD with AERC, the latter has, under its research program, collaborative research projects that are undertaken in cooperation with other research organizations within and/or outside Africa, as well as with other partners such as the United Nations and its family of agencies and organizations. Granted, RPSUD has continued to conduct regional workshops and publish a regional newsletter. The results of the MSc thesis work under RPSUD have been disseminated through regional workshops, as well as communicated through the Dryland Biodiversity Newsletter. But many 'non-regional' organizations are also doing this. To the extent that the regional dimension of RPSUD activities is not readily evident, more inclusive approaches to collaboration ought to be explored. This would facilitate researchers working together from the time research activities are identified to the final dissemination of the research outputs.

Knowledge *utilization* is perhaps the trickiest aspect to determine particularly in the social sciences field. One indication of a regional research network's success is to establish its policy relevance that could be measured in terms of the extent to which policy-making is influenced by the outputs of, say research. Most of the studied regional research networks strive to improve their ability to reach out to policymakers. AERC is perhaps the most elaborate with respect to its communication strategy that targets, among others, policymakers. The Consortium's Communications Programme undertakes a series of activities that are aimed at facilitating the impact of AERC research and training products on economic policymaking in Africa. The print, electronic, and event-based communication and dissemination techniques have been employed collectively as a platform for outreach. Activities at this level have included regional-level Senior Policy Seminars, National Policy Workshops, a web-linked information service, and a variety of publications all targeted at regional researchers in the economics profession as well as at policymakers. AERC publications include Executive Summaries – short, user-friendly synopses (in English and French) of research papers tailored for busy policymakers who need to keep abreast of economic research. A total of 135 research papers, most with their executive summaries, and 17 Special Papers have been published as of 2006. Senior policy seminars have provided a fertile ground for the discussion of AERC:s funded policy-oriented syntheses, and for obtaining feedback from policymakers on the organizations' research agenda. National economic policy workshops have also been important tools for promoting policy dialogue.

With its complement of journals, 50% of which are on-line in full text[16], CODESRIA also has contributed significantly to the intellectual development of the African continent. They have provided a platform for the dissemination of social science knowledge produced by Africans on Africa both within the continent and beyond. Publications are now done English, French, and Arabic. Plans are at advanced stage to start publishing in Portuguese. The Council's Research Programme includes *Policy Oriented Research Projects* that serve as an important basis for the operationalization of research findings in favour of policy actors and civil society organizations.

Another regional research network that has focused its attention on influencing policy (and, thus, exhibiting some measure of facilitating knowledge utilization) is ATPS. Through its innovative annual

[16] These are Africa Development, African Sociological Review, African Journal of International Affairs, Afrika Zamani, Identity, Culture and Politics: An Afro-Asian Dialogue, CODESRIA Bulletin, Journal of Higher Education in Africa, Africa Review of Books, Africa Media Review, Afro-Arab Selections for Social Sciences.

Policy Round Table, ATPS national chapters bring together policymakers, actors in the private sector, and researchers to discuss a chosen science and technology policy issue of national importance. Such forums have been useful in expanding policy options and the outcomes have, in many instances, been used in policy formulation. It is noteworthy that all the consultants who worked on the National Science and Technology Policy for Lesotho were ATPS members. Moreover, ATPS national chapters have organized training and dissemination workshops for members of parliament in Uganda, Zambia, Zimbabwe, and Lesotho on technology policy issues. This kind of support to the legislature is now mandatory for all ATPS chapters on an annual basis. As further evidence of the ATPS effort to reach out to policymakers, the Network has added to its list of publications *Technopolicy Briefs and Executive Summaries,* both specifically targeting the busy policymakers.

2.3.6 Capacity building

Overview

To the extent that capacity building is all-embracing, most of the issues discussed above are related to it in one way or another, an aspect that introduces unavoidable overlaps. In this analysis, capacity building can be seen at two different levels:

- Capacity of the *process* regarding the interface between Sida/SAREC and the recipient regional research network, and how the relationship is supportive of the aim to achieve both Sida/SAREC:s research goals in Africa as well as the mission of the organization being supported. This level of assessment largely relates to operational relationships between Sida/SAREC and the regional research network.
- *Systemic capacity* (institutional and human) of both Sida/SAREC and the regional research networks themselves with respect to the achievement of the declared goals and objectives. At this level, one looks at institutional effectiveness vis-à-vis Sida/SAREC effectiveness as well of that of the supported institutions.

These two levels of capacity assessment are related and do influence each other in several important respects. For example, the *context* of the operational relationship between Sida/SAREC and its African partner networks does influence (or even determine) the systemic capacity of these networks to achieve their goals. Conversely, the human and institutional capacity in both the regional research institutions and at Sida/SAREC could influence the nature of the operational relationship (the process) in a manner that could improve or minimize opportunities for achieving the collective goals. It is also important to appreciate that capacity building considerations have an important relationship to sustainability. Without building the requisite competencies and systems, the earlier discussed aspects of the sustainability of the regional research networks/programs would be affected adversely. In the light of the above, the challenges of capacity building are analyzed below, and need to be looked at in a holistic manner, recognizing the intrinsic interrelationships. Capacity building considerations are discussed later beginning, first, at the level of regional research networks. then as it relates to Sida/SAREC structures/systems.

Regional Research Networks

All the studied regional research networks include in their activities elements that aim to strengthen both their operational capacities and the capacity of their members (mainly individual researchers, policymakers, and universities) and their decentralized organs (such as national/local chapters, focal points, etc.). In most cases, donors, including Sida/SAREC, have been called upon to provide support to capacity building/strengthening efforts. A look at the studied networks illustrates this.

First, as earlier demonstrated, the stated AERC primary objective is to strengthen local capacity for economic policy research in Sub-Saharan Africa. Through thematic and collaborative research as well as training programs, the Consortium has targeted interventions to its stakeholders that include younger researchers, and exposes them to methodological workshops on research skills improvement.

Specifically in tandem with the Sida/SAREC global goal of poverty reduction, the AERC research program includes poverty, income distribution, and labour market issues. The organization also facilitates policy dialogue that, in a sense, is a capacity yielding approach to facilitate the organization's capacity for appropriate and informed policy responses.

Second, CODESRIA's effectiveness in the area of capacity building is best expressed, as in the case of AERC, by its positive response to African researchers' training needs by, inter alia, building a formidable training program. The Council's award of small grants for thesis writing in African universities[17] and the organization of a number of annual, theme-specific 'summer institutes,[18] have contributed to the development of a cadre of professionals on the continent. Furthermore, the funding of methodological training sessions, the award of advanced research fellowships, and the convening of an Annual Social Science Campus, have demonstrated the Council's readiness to accommodate and cater to capacity building needs and interests. This includes the young and upcoming researchers, mid-career scholars, and the most senior and experienced members of the African academy. CODESRIA's development of the research capacity interventions is closely tied to the changing context of teaching and learning in African universities. CODESRIA has developed programs that specifically address the observed gaps in these higher institutions of learning. Moreover, through its publications program, CODESRIA has contributed to the intellectual development of the African continent by providing a platform for the dissemination of social science knowledge produced by Africans on Africa, both within the continent and beyond. Currently, publications are done in three main languages, namely, English, French and Arabic. Publications in Portuguese are also underway.

CORESRIA also aims to strengthen its institutional capacity as well as that of its supported members and networks. The organization's turbulent period provided it with the opportunity to rebuild its capacity to better position itself in an ever-evolving and dynamic disciplinary field. It has now redefined its priorities and the requisite capacities to support the reoriented mission. These are now in the process of being strengthened at the institutional and human resource levels. The agenda under its core research activities has been expanded, supplemented by its training programs that target capacity development for younger scholars/researchers.

Third, as in the other two networks above, OSSREA's objective of promoting research and training in the social sciences, targeting policy-relevant knowledge generation, has important capacity building elements. OSSREA has contributed to the building of regional capacities around its thematic concentration (social sciences) particularly through its competitions, its training workshops, and its publication activities. This study has, however, established that the capacity of OSSREA would be better enhanced through a more decentralized mode of delivering its products, targeting the strengthening of local chapters in a way that would make them more effective and less dependent of the organization's headquarters. Once this is done, some of the tasks that are currently centralized could be hived-off to the lower level, freeing the head of the organization to concentrate on more strategic management of the network. Presently, the Executive Secretary is inundated with such chores as the preparation of research proposals and backstopping on the publication functions. The latter functions, if decentralized

[17] The laureates of the Small Grants Program are exposed to regional methodology workshops for graduate students. These workshops are designed to equip the younger generation of researchers involved with the latest research tools and materials that they need for their research. They also provide an opportunity for the laureates to tap into the experience of proven researchers in their fields from within and beyond the continent. The interaction which this program offers encourages an intergenerational and multidisciplinary dialogue. As an off-shoot of this program, the Council, for a period of time, organized a separate Summer School in Quantitative Methods, which attracted the participation of young postgraduate students. The School was phased out in 2002 and its curriculum integrated into the regular methodological workshops that are held for winners of the grants awarded for thesis writing.

[18] There are four institutes covering gender, governance, child and youth, and health.

to local chapters, could enable the Executive Secretary to concentrate more strategically on policy issues and overall network retooling[19].

Fourth, ATPS aims to strengthen the capacity of its members (national chapters, researchers, policymakers and other end-users of research results). One of the unique features of ATPS is the existence of well-functioning national chapters. This not only makes for demand-driven programs, but also firmly establishes the ownership of the network from the bottom up. As part of its capacity building initiatives, ATPS has enhanced research and writing skills of over 700 scholars in member countries. It has also funded over 130 small research grants. Some of these researchers are now occupying important positions in government, the universities, and international organizations. This study has, nevertheless, revealed that some of the national chapters require capacity strengthening particularly with respect to the actual organization of chapter affairs and the solicitation of more individual members.
Similarly, some of the served universities in the region are quite weak in the area of technology policy research. One way of developing this capacity is through ATPS assuming a leadership position in the development of this capacity, through stronger collaborative schemes for which Sida/SAREC support could be sought. Well-targeted capacity-enhancing training for carefully targeted universities (particularly in the eastern and southern African regions where research capacity is relatively low compared to the West African region) would be an important intervention that Sida/SAREC could explore further.

Lastly, the Research Programme for Sustainable Use of Dryland Biodiversity (RPSUD), by offering a specialized M.Sc. course in biodiversity and providing small grant research scheme, is helping in capacity development. One of RPSUD's specific objectives is to "build and enhance institutional research capacity."

Sida/SAREC

The capacity building considerations for Sida/SAREC should be assessed in the context of the Swedish stated policy for Capacity Building through Regional and International Programmes. In one of its guiding policy documents, Sida states that it's "support to regional programs for capacity development shall primarily aim to link institutions and research activities in various countries." In this regard, Sida assists regional research programs with a view to supplementing and enhancing support for national capacity development through regional and subregional cooperation. This would be focused in areas where national efforts need to be supplemented with regional or subregional perspective. In choosing who/what to support, Sida's intervention is guided by a number of criteria, the principal ones being:

- The four Sida action programs: poverty reduction, sustainable use of natural resources, gender equity, democracy and human rights.
- Research areas of particular relevance to the partner/recipient countries.
- Opportunities for linking Sida-funded research and development programs.
- Opportunities for collaboration with other agencies in important areas where large, collective contributions are needed.
- Opportunities for paving the way for additional contributions for 'under-supplied areas.'
- Opportunities for collaboration of mutual interest between developing country researchers and Swedish research of recognized quality and developmental relevance.
- Appropriate mechanisms for establishing scientific assessment.

[19] The Executive Secretary of OSSREA is the only international staff member at the headquarters, although the establishment allows for three. The other two positions (Deputy Executive Secretary and Head of Publications and Research) were not filled at the time of our study, thereby adding to the Executive Secretary's administrative workload.

The efficiency and effectiveness of supported regional research networks are influenced by the aid relationship, and how Sida/SAREC and other donors interface with African institutions that benefit from external support. The Swedish research assistance strategy outlined above indicates that support to regional research networks/programs is sufficiently flexible to accommodate the special needs of the recipients. Although Sida does give an indication of the themes that it believes are more responsive to its global research agenda[20], its criteria for support are primarily guided by the recipient networks' definition of what is to be done. Similarly, at the level of activity planning, all the studied networks revealed that Sida/SAREC does not impose a research agenda on them. It was reported that the determination of the research activities has been left to the respective decision-making bodies within the networks. Even in AERC, where Sida is represented on the Board and also serves as an elected member of the organization's Executive Committee, the actual decisions pertaining to the choice of programs/activities are taken by the recipients themselves.

It is really at the level of process (activity planning, preparations, decision-making, and follow-up of contributions) where the appropriateness of the Swedish *modus operandi* could be critically assessed to determine areas of possible improvement. A number of realities are noteworthy at this level.

First, the efficacy of external assistance to regional research networks is better realized when donors supporting the same network or group of networks collaborate and harmonize their effort and build local institutional capacities to implement declared mandates. The experience of some of the studies of regional research networks in the social sciences suggests that how donors collaborate in their provision of assistance does have a bearing on the effectiveness of their support. This view is predicated on the fact that the proliferation of uncoordinated donor support in some of the regional research networks examined has placed overwhelming functional stress on their limited capacities to better integrate external assistance in their activities. The sheer number of donors in some of the regional research bodies, the multiplicity of their uncoordinated support, and their different reporting, accounting, and general oversight requirements are reported to have brought about fragmentation in the use of otherwise essential external assistance. This could threaten the effectiveness of the supported programs/activities. In this respect, there is the growing recognition of the importance of harmonization among and within the main players in the donor-recipient interface. Their collective actions should be coordinated in a way that avoids undesirable duplication of effort, which tends to inflate the recipient institutions' transaction costs. Studied networks, particularly those that are highly aid-dependent and that have a multitude of donors, have reported during interviews that the management of different donor procedures has resulted in crippling transaction costs. All of them recommended the harmonization of donor reporting procedures and their alignment to the institutions' own systems.

Second, and related to the above, the process of follow-up (control, monitoring, and evaluation) that donors, including Sida/SAREC, use to secure effective utilization of resources has been a subject of mixed reflections among the studied networks/programs. All the networks agree that reporting and monitoring of external assistance (indeed of any resources that are used) is important to ensure the effectiveness of what is being supported. If done properly, reporting and monitoring generate data that are essential for drawing lessons, reexamination of agreed priorities, and better management of supported activities. For donors, it provides assurance that funds are being used in accordance with the agreed plan/activities.

Notwithstanding the above, the Sida/SAREC procedure of requiring, on a bi-annual basis, comprehensive financial reports on how the earlier disbursements were used as a condition for further replenishment, has been found to be taxing in terms of transaction costs. All covered organizations/programs, without exception, are calling for single annual disbursements. This problem is much more pronounced

[20] These are sustainable use of natural resources; health; technology; and political, economic and social dimensions of development.

in those regional networks that are supported by many donors. Many donors demand separate reporting on the use of their resources (separate audited statements), creating monumental administrative burdens for recipient organizations. The combined reporting demands of the donors, and the diversity of their reporting formats and time frames, have often exceeded the recipient networks' capacity to deliver useful and timely information. This has resulted in the refusal by some donors, including Sida/SAREC, to disburse further resources. When an organization fails to submit an acceptable financial return, the general suspicion is that there could be corruption when, under the current circumstances, the overwhelming and uncoordinated reporting demands from donors could have introduced an administrative gridlock to the existing limited capacity of the recipient organization. This has prompted calls for joint reporting, particularly for those organizations whose financial management systems do not suggest the presence of accountability frailties.

Even more disconcerting, the average donor places more emphasis/value on monitoring expenditure (in the form of audited accounts and basing financial replenishments on acceptability of accounts) than on assessment of outcomes/impact of supported programs/activities. Disbursements are, more often than not, halted on the basis of 'failure to account' for resources and less on failure to report positive impact of interventions. Moreover, another problem that has been evident is that reporting systems that are required in the average regional research network have often been demanded by, and designed for, donors merely to meet their information needs, with little consideration for the needs of the recipient organization. In the light of these revelations, a paradigm shift in the manner reporting is conceptualized, what it should include, and how it should be linked to further resource replenishments would seem to be an area that Sida/SAREC needs to address as a matter of urgency. From the interviews conducted during this study, a number of messages for Sida/SAREC are emerging regarding reporting and monitoring systems:

a) Reporting and monitoring systems should be owned and led by the regional research organizations, and the frequency of reporting ought to be aligned to the capacity of the organization, taking into account the virtue of minimizing transaction costs of the recipient. Related to this, Sida/SAREC other donors should work toward reaching consensus with the recipient regional research networks on common formats, content, and frequency of reports.

b) There is need to ensure that monitoring and evaluation takes into account the mandate and objectives of regional research networks in a manner that strengthens accountability to their own members and not only to donors. In this respect, donors that support a particular network should collectively help strengthen the capacity of recipients to be able to professionally and transparently report on *all* their activities rather than only for the resources that donors themselves provided. Donors should be encouraged to rely on a single reporting system for similar activities/programs and, hence, adopt a single monitoring framework. Sida/SAREC, as the main player in many of the studied networks, could advocate this *modus operandi* in the interest of making more effective its global research agenda, as well in the interest of the recipient organizations.

c) Sida/SAREC should rely on the financial reporting system of the supported regional research network/programs. In this regard, donors should increasingly accept the unified audited accounts of a regional research network/program instead of demanding separate audited accounts. When the system is considered inadequate to meet the expected accounting/auditing standards, donors should help develop the requisite capacity rather than develop parallel financial accounting, monitoring and auditing systems. These drain capacity and, due to their multiplicity, result in aid ineffectiveness.

Third, a few of the regional networks suffer from structural and human capacity limitations that include weak organizational systems, and/or poor financial management and accounting systems, that have tended to threaten accountability, and thus encourage donors to pull out. The financial accountability/corruption allegations at the African Energy Policy Research Network (AFREPREN), and the weak

organizational structure and inadequate focus of UAPS, testify to the need for retooling of systems and procedures before donors can meaningfully resume serious financial and technical support. In the case of AFREPREN, the challenge becomes one of how best donors such as Sida/SAREC could handle corruption-related charges (that often involve particular individuals) without threatening the survival of a well-meant regional network. With regard to UAPS, unless the organization diversifies its activities and develops a clearer focus of what it intends to do, it is unlikely to attract funding. The current situation, whereby only one professional staff member is in place at UAPS Secretariat (the only other officer being a security guard), also bring to the fore the challenges of capacity enhancement. The good news is that UAPS is working on a strategic plan that could once again inspire donors and researchers in the region to be part of its mission.

Fourth, many of the regional research networks studied are calling for direct budget support to 'core' programs that are determined by their respective decision-making bodies. The tying of external support to specific activities within the supported program to compromises the degree to which networks are allowed to revise their activities in line with changing circumstances. The average donor, including Sida/SAREC in some cases, is reported to earmark specific activities within a supported program. Although the argument is that the programs themselves are developed by the regional research network, there is still legitimate concern that, by tying resources to specific activities over a multi-year period (often 3–5 years), donors have denied the recipient the right to use existing decision-making structures to alter budgets in the light of changing circumstances. This is seen to amount to aid tying, and is problematic in the average donor-recipient partnership. Hence, this study has received calls for the introduction of a 'lighter hand' approach by which funds that support networks' programs are untied and provided without stringent donor control over actual allocations to specific activities within the supported program. Untied support to 'core' programs is the preferred mode of support by all the studied networks/programs. When managed properly, untying would not unduly threaten effectiveness and accountability considerations, so long as this is complemented by capacity strengthening support in financial accounting, reporting, monitoring, and internal auditing. Ultimately, untying aid results in local ownership, itself an important prerequisite of Sida/SAREC:s cherished global goal of equal 'partnership' in its development cooperation.

2.4 Lessons Learned and Recommendations for Sida/SAREC

It is important to break down the underlying assumptions regarding Sida/SAREC global goals in its support to regional research networks in Africa, and determine whether such assumptions coincide with those of the supported institutions. For example, the overall aim of the Sida/SAREC thematic research program is "to support research that contributes to combat poverty and an equitable and sustainable global development." Does this goal coincide, in both substance and stress, with the aspirations of the organizations that are being supported? Does it matter if Sida's global goal in the research area does not exactly tally with the mission and objectives of the institutions that it supports? These are fundamental questions that do not necessarily question the Sida/SAREC global mandate in development cooperation in the area of thematic regional research support. Instead, in the changing Aid Architecture under the Paris Agenda where questions of local ownership have been elevated to a level that begins to tease the nature of the aid relationship, the actual questions that are asked when one attempts to assess the effectiveness of aid must themselves be questioned. This would help secure the 'purity' that is envisaged in the Paris Declaration on Aid Effectiveness. When issues of capacity building, efficiency, and effectiveness become the subject of analysis, the question: "whose efficiency, whose effectiveness, whose capacity building" receives as much attention as the actual answers.

Broadly speaking, there has been an outpouring of appreciation of the work of Sida/SAREC in its research cooperation in Africa in the field of social sciences. There is perhaps no institution that has expressed this more than CODESRIA. In terms of institutional development, it has been reported that

very few donors care how institutions survive in terms of overhead costs. To the extent that Sida allows for this, it signals the faith Sweden has for African development in the area of knowledge generation. It was also reported that Sida has demonstrated its long-term commitment to Africa when, during the time of the CODESRIA 'crisis,' it decided not to pull out at the first sign of problems. As the "unsung hero" of the CODESRIA revival, coupled with its continued support for the organization's 'core programs', Sida/SAREC is seen to have allowed the recipients of its aid to be faithful to their domestically developed research agenda. This view was generally echoed, though in different ways, in most of the networks visited. As one head of the sampled organizations concluded, "the autonomy that Sida has extended to us has strengthened our bargaining power with other donors that tie their aid…We bargain better by citing the Sida relationship…Therefore, on the basis of our main expectations and concerns, Sida has been our all-weather partner."

In light of the above, the following are the main recommendations from this assessment of Sida/SAREC support to thematic regional research networks/programs in the Humanities and Social Science:

1. It is recommended that Sida/SAREC gradually extends 'core program' support to all the regional research networks that receive its assistance. In this regard, Sida/SAREC should minimize and eventually eliminate earmarking of support to specific activities in its support to regional research networks/programs. When this is done creatively, it will bring Swedish assistance within a common management and planning framework for implementing agreed research programs and activities. When well managed, such an approach to research support will bring the network budgets back to the centre of decision-making, and facilitate the unification of expenditure management (irrespective of the source of revenue) in pursuit of agreed research agendas. This will also reduce the procedural diversity of multiple donors that the average regional research network, as revealed in this study, finds to be both burdensome and costly.

2. To operationalize (1) above, it is recommended that Sida/SAREC, in collaboration with other like-minded donors (for example, the other Nordic countries), should consider piloting the pooling of their contributions/disbursements through jointly agreed channels. In collaboration with those donors that participate in the pool, all donors would surrender the authority to apply the money to broadly agreed program areas. It is expected that such an arrangement would yield several benefits such as:
   - Enabling the regional research network/program to institute a single procurement, financial management, disbursement and audit system, thus reducing the transaction costs of parallel procedures for each donor.
   - Enhancing the regional network's own fiduciary system, thus strengthening ownership, internal capacity, and organizational sustainability.
   - Extending donor confidence over the proper use of funds to the whole regional research network, rather than just to the ring-fenced projects/activities each donor has financed.

3. Sida/SAREC should redesign its support to regional research networks/programs in such a way that its support, both technical and financial, is delivered, monitored, and reported through the existing management system in the same manner other resources are handled. In this respect, Sida/SAREC should accept consolidated audit reports of its partner networks.

4. Regional research networks/programs require timely information on Sida/SAREC:s financial commitments and disbursement schedules. This would secure the required predictability of external support and its effective integration into the regional research networks' planning systems. It is further recommended that Sida/SAREC should program its support to regional networks over a multi-year timeframe, synchronized with the financial planning horizon of the organizations/programs. This is particularly necessary for those networks that are strongly dependent on donors.

5. Regional research networks recognize project/program monitoring and evaluation as important preconditions for ensuring the success and sustainability of their activities. Sida/SAREC:s effective reporting and monitoring systems should therefore be enhanced, but ought to be fully integrated into the same systems that monitor other resources.

6. Sida/SAREC should explore the best way to assist those networks that it supports to develop enhanced financial accountability systems and structures that would secure the confidence of all stakeholders, including Sida's, regarding the integrity of the organizations' oversight mechanisms. In this regard, priority should be given in Sida/SAREC assistance to the strengthening of the financial accounting, auditing, and procurement systems of those regional research networks/programs that require this. Once there is assurance that the requisite capacities are in place, Sida/SAREC, in collaboration with other donors, should work toward: (a) reducing the number of disbursements to one per year; (b) agree on joint reporting, including acceptance of a single audit report; (c) harmonize among all donors and the network the funding of the programs; and (d) explore opportunities for 'delegated cooperation' whereby one donor could use another donor to manage/oversee its contributions to a given network.

7. Sida/SAREC should facilitate more efficient and results-oriented partnerships with its partner networks. A good framework for cooperation simplifies working relationships, fosters flexibility, and facilitates better structured dialogue within the regional research networks, between the networks and cooperating partners/donors, and among donors themselves. When adequately conceived, a coordination framework enables better alignment between the regional research networks' priorities and donor assistance, and would facilitate the synchronization of the disbursement of donor funds with the networks' planning and budget cycles, thus enabling improved predictability of external resource inflows into Africa's own research agenda. To facilitate this, Sida/SAREC should, in collaboration with other donors and the supported networks/programs, agree on effective dialogue architecture with the recipient research organizations. One possible way of doing this is to agree on holding annual meetings attended by the heads of the regional research networks/programs in Africa as well as representatives of the most active donors. At these meetings, common areas of research cooperation could be explored and agreed upon, and areas that pose challenges in the donor-recipient relationship amicably agreed upon/resolved. In such annual forums, the exchange of 'best practices' in terms of network management, identification of common research agendas, and optional resource mobilization strategies that secure the sustainability of networks/programs could be discussed/shared in a mutually beneficial manner. The forums could also serve as important platforms for aligning donor strategies and global research agendas to those of the recipient regional research networks/programs. This would facilitate adherence to the Paris Declaration on Aid Effectiveness, in which it is expected that donors should better align their support with recipient organizations' priorities and the harmonization of policies, procedures and practices. This will also provide an opportunity for donors that support research in Africa to respond positively to Paragraph 43 of the Monterrey Consensus. It specifically called on donors to "harmonize their operational procedures at the highest standards so as to reduce transaction costs and make ODA disbursements and delivery more flexible, taking into account national development needs and objectives under the ownership of the recipient country."

8. As a rejoinder to (7) above, it is recommended that Sida/SAREC should commission a study to explore and recommend best practices for donors to deliver and manage external assistance to regional research networks. It is further recommended that they do this through the simplification and harmonization of their procedures, and propose 'good practices' in broad research function areas. Such a strategy would improve the overall effectiveness of Sida/SAREC aid for research capacity building and enhancement; reduce the cost of managing assistance to networks (transaction costs); promote capacity building; make regional research networks/programs more efficient and

effective; and, above all, respect Sweden's declared goal of strengthening partnerships in which the recipient countries own the processes.

9. To complement (8) above, it is also recommended that an effective and formalized communication strategy be developed that allows for proactive dialogue between Sida/AEREC, other strategic donors, and the supported regional research networks/programs. Through such a mechanism, any specific requirements that should be respected by either party can be shared to enhance the donor-recipient interface (for example, additional information for fiduciary, accountability, or reporting and monitoring purposes).

10. To arrive at a more harmonious partnership, fiduciary risk mitigation measures governing Sida/SAREC and the supported regional research networks should be determined at the outset. The reported high level of staff mobility that regional research networks interface with at Sida/SAREC in Stockholm threatens the needed stability and continuity in donor-recipient dialogue. It is recommended that efforts should be made to secure the stability of personnel at Sida/SAREC headquarters to help guarantee more effective dialogue and maintain institutional memory.

11. Overall, there is need to agree on a general framework and procedure for cooperation between Sida/SAREC and the supported regional research networks/programs. The current Sida/SAREC documents/memorandums that define the form of support to each network could be improved. This could be done by giving more details and/or complemented by another more detailed document that provides specific framework agreements with accompanying project/program preparation, implementation, monitoring, and evaluation procedures. Such an agreement/framework should spell out the format and content of reporting, frequency of reviews, procedures for procurement, technical assistance arrangements, and scope and frequency of audits. These procedures, to the extent possible, should be 'domesticated' by aligning them to, and harmonizing them with, existing procedures of the recipient research networks. It should be borne in mind, however, that the harmonized/aligned procedures should meet the acceptable standard requirements for effective and transparent monitoring and control. This will require that Sida/SAREC reassess standard procedures that are, as a routine, always appended to agreements/contracts that govern relationships.

3. Thematic Research in the Health Sciences[21]

3.1 Background

3.1.1 Assessing thematic research in health in relation to development

Sida/SAREC support for thematic research in health sciences is essentially focused on health research that can help alleviate poverty and promote sustainable development, by strengthening indigenous research capacity. The evidence for the link between health research and development has been discussed in various landmark publications from the Commission on Health Research for Development *(Health Research: Essential Link to Equity in Development*, 1990), the World Bank *(World Development Report 1993: Investing in Health),* the UN Millennium Project *(Investing in Development,* 2005), and the Center for Global Development *(Millions Saved,* 2005). These publications have also underscored the inequities in development as a result of huge gaps in indigenous capacity to generate knowledge relevant and essential to improving health in LMICs, as well as to utilize such knowledge for policy and action points, including: Other reports have made the same points, including: the 1996 report of the WHO

[21] This input to the work of the team is by Mary Ann Lansang.

Ad Hoc Committee Relating to Future Intervention Options and the 2004 World Report on Knowledge for Better Health, as well as the 2004 Mexico Ministerial Summit on Health Research and the June 2006 high-level ministerial meeting held in Accra, Ghana.

Thus Sida/SAREC:s thematic research program includes the promotion and support of themes in *health research,* specifically the production and utilization of knowledge relevant and important to the improvement of health in LMICs. This would be accomplished by international research organizations or through regional or sub-regional cooperation, and/or partnerships and collaborations among stakeholders at country, regional and international levels. Our report focuses on the evaluation of thematic areas in the health sector, in particular: tropical and other infectious diseases, vaccine research, HIV/AIDS, sexual and reproductive health, child health, health systems research, and organization/governance of health research. With development as the driver, it is no coincidence that the disease-oriented themes of Sida/SAREC are also responsive to the health- and poverty-related Millennium Development Goals.

In general, the purpose of the evaluation was "to assess the programming and follow-up of the support by Sida/SAREC to research that contributes to poverty alleviation and equitable and sustainable development." The evaluation included a review of the channels used, particularly for the period 2000–05.

3.1.2 Health research: changing context and challenges

Rapid and profound changes in the global scene, in the research environment and in health and related sectors, fundamentally affect how LMICs address issues of poverty and health through their health and health research systems. Over the past 20 years, there have been many such significant developments, good and not-so-good:

- Changes in the global health policy environment, which has converged on the need for strengthening health systems and health systems research.
- Globalization, not just of trade and commerce, but also of knowledge as well as knowledge workers.
- Rapid advances in information and communications technology on the one hand, and the growing digital divide on the other.
- New scientific technologies related to molecular biology, genomics, proteomics, nanotechnology.
- Huge increases in funds for health research, from ~US$30 billion in 1990, to ~US$84.8 billion in 1998, to ~US$105.9 in 2001, and even more in recent years through donations from Bill & Melinda Gates Foundation, and new initiatives such as the European Developing Countries Clinical Trials Partnership (EDCTP) and the Global HIV/AIDS Vaccine Enterprise.
- Trend toward heavy funding of vertical programs, including private-partnerships and product-oriented R&D for disease targets;
- Emerging and reemerging public health problems such as SARS, avian influenza, health consequences of disasters, bioterrorism.
- Environmental degradation and global warming.
- Escalation of border conflicts, civil and foreign wars, and growing numbers of refugees.

In their recent analysis of trends and changes that strongly influence the international context of health cooperation, Bartlett et al. (2006) identified four top trends from 1995 to 2004, as shown in Table 1. Three of these trends also affect the context for *health research* cooperation, albeit in a slightly different ranking compared to its effects on health cooperation. In the health research context, these are: first, issues on HIV/AIDS as well as opposing world views on sexual and reproductive health and rights; second, the emergence of vertical approaches to disease R&D and control, including the unprecedent-

ed research funds for vertical research initiatives; third, the more recent promotion and resurgence of horizontal and systemic approaches, particularly the strengthening of health policy and systems research, and the efforts to strengthen national health research systems.

Table 1. Top trends and changes in the international context of health cooperation, and their influence on the health research context (Adapted from: Bartlettet al 2006)

Trend/change	Findings from Bartlett et al. (2006)		Influence on health research context (as rated by evaluator)
	Ranking by Swedish interviewees	Ranking by international interviewees	
Ideological shifts (sexual and reproductive health and rights; HIV/AIDS)	1*	4	1
Emergence of vertical approaches (new disease-specific global actors; "3 by 5", private-public partnerships)	1	2	1
A move toward budget support (governments of LMICs)	3	3	–**
Emergence of horizontal approaches (strengthening of health systems, sector-wide approaches, Poverty Reduction Strategy Papers)	4	1	3

* Note: Numbers indicate rankings, with 1 as the most important.

** As of 2004, only 4 LMICs were identified to have allocated the equivalent of 2% of the national health expenditure to the budget for national health research, as recommended by the Commission on Health Research for Development in 1990, and noted by the 2004 Mexico Ministerial Summit for Health Research.

In general, the above trends and changes over the past 20 years suggest massive external inputs on growing problems of the poor in LMICs, comparatively weaker internal growth in health systems and research capacity, and an increasing outflow of human resources for health and health research from LMICs to HICs. These trends are especially relevant to Sida/SAREC as a development-oriented research agency, because they have implications on SAREC:s strategic directions and options for health research support. This includes the generation and utilization of knowledge as well as for the strengthening of indigenous research capacity in LMICs.

3.2 Sida/SAREC:s International and Regional Health Research Support

3.2.1 Institutions supported

A summary of Sida/SAREC:s support for organizations carrying out international or regional health research is given in Table 2. As of 2003, 46 memoranda had been approved for thematic research on health. In general, the support provided follows the guiding principles for Sida/SAREC:s health research cooperation: "It should promote capacity building for research in low-income countries and linkages between national and international research. It should address the major health problems of low-income countries, focus on prevention, promote equity in health, and ethical conduct of health research and research cooperation."

Table 2. Organizations supported by Sida/SAREC for international and regional thematic research

Organization	Level of Support		Remarks
	Year/s	Amount (in MSEK)	
International			
Alliance for Health Policy and Systems Research	1999–07	25	Funding provided through the WHO channel beginning in 2006 (see details under annexed WHO report)

Organization	Level of Support		Remarks
	Year/s	Amount (in MSEK)	
Council on Health Research for Development(COHRED)	1995/96–06	46.5	Sida/SAREC requested a joint proposal/ merger with GFHR for 2007 and beyond (see separate COHRED/GFHR report)
Global Forum for Health Research (GFHR)	1997–06	39.5	Sida/SAREC requested a joint proposal/ merger with COHRED for 2007 and beyond (see separate COHRED/GFHR report)
INDEPTH Network	2001–07	10.5	INDEPTH Network currently has 31 demographic surveillance sites in 17 LMICs.
World Health Organization(WHO)	1997–06	485	See separate report on WHO
Multilateral Initiative on Malaria(MIM)	2003–06	6	International organization of malaria researchers and malaria control practitioners, with a primary focus on Africa. Sweden was the host of the secretariat in 2003–05.
European Malaria Vaccine Initiative (EMVI)	1999–05	22.6	Established in 1998 to support mechanisms that would accelerate the development and evaluation of malaria vaccines.
International Vaccine Institute (IVI)	2002–07	18	Created by UNDP in 1997, with the Republic of Korea as the host country, to conduct research and provide technical assistance on development, introduction and use of new and improved vaccines
International AIDS Vaccine Initiative (IAVI)	2002–05	6.5	Provided some core support to IAVI under the Special Program on HIV/AIDS.
Centre for Health and Population Studies (ICDDR,B)	1995/96–07	62.475	Support provided under "regional" program. See separate institutional profile on ICDDR,B
Sida's research program on HIV/AIDS	1995/96–2005 2006–07	73.9 64.6	Scientific Advisory group on HIV/AIDS created; various themes supported through the years, e.g., vaccines against Chlamydia and HIV; HIV prevention; social science aspects; biomedical research projects; International Partnership for Microbicides Request for HIV/AIDS applications advertised. For 2006, there are more grants being awarded but with comparatively smaller amounts per grant
Regional			
Regional program on social, economic and behavioural aspects of the HIV/AIDS pandemic in Africa			Four African social science networks funded: CODESRIA, OSSREA, UAPS, Soma-Net (see separate reports on these networks.)
NeTropica	2000–05	18	Network of six Central American countries; continuation of long-term cooperation between Swedish and Latin American institutions
Central American Institute for Studies on Toxic Substances (IRET)	1999–02	12.6	Network that investigates the effects of pesticides on the environment and health; masters and PhD training

The *international research programs* that Sida/SAREC supports are generally those linked with the UN system (WHO) and/or those with a broad-based constituency. They address specific research themes related to poverty alleviation (for example, tropical diseases, reproductive health, HIV/AIDS), or cross-cutting areas that fill important research gaps related to LMICs (health systems research, demographic surveillance), or address governance and health research systems issues globally and among LMICs (COHRED, GFHR). The common denominator among these programs supported is the goal of better health for the poor and LMICs. These international programs generally have multiple sources of funding, with Sida/SAREC contributing core support of 1–22% of a program's annual budget. There are, however, strategic areas where Sida/SAREC has chosen to earmark project funds, for example, in the case of HIV/AIDS. There have been special initiatives supported on HIV/AIDS, and more recently specific projects vetted from two international calls for applications on various areas, such as prevention including vaccine R&D, pathogenesis, treatment, public health, and health systems aspects.

Sida/SAREC has also supported *regional research networks*, but the number, scale and duration of support for regional initiatives are modest compared to international program support. Regional support is aimed at enhancing and harnessing national research capacity and/or addressing priority health problems in the region. ICDDR,B, based in Bangladesh, which is an international research centre, is supported under the regional portfolio of Sida/SAREC, because of its focus on the health problems of the poor people of Bangladesh, and its increasing collaboration with neighbouring countries. ICDDRA,B also conducts global health research. This is one of various regional models used by Sida/SAREC: an effective governance structure and an established organization with a broad base of financial support to which Sida/SAREC contributes some core support (see separate reports on ICDDR,B and social science networks in Africa). In other cases, however, Sida/SAREC has provided short-term support to regional groupings around a thematic area (NeTropica or IRET), with a focal point that coordinates and oversees a portfolio of research projects.

For most of the international and regional research programs, research capacity strengthening among LMICs is an explicit objective.

3.2.2. Assessment of Sida/SAREC support

Relevance

Sida/SAREC:s support for international and regional thematic research is relevant to global issues of inequity in health and development and strategies for poverty reduction. Sida's position papers and other analyzes on key issues (research cooperation policy, HIV/AIDS, international context of health cooperation) have been effective in guiding the portfolio of support at the international level. The international programs supported clearly articulate how their goals and objectives relate to the attainment of the health-related MDGs HIV/AIDS, tropical diseases including TB, sexual and reproductive health, infant and child health, vaccine R&D), and/or how specific research themes relate to poverty reduction and development in poor countries. These include systems approaches and improvements in LMICs through best practice for international health research cooperation, health research priority setting and financing, health policy and systems research, health information systems, gender mainstreaming, and strengthening indigenous research capacity for sustainable development.

Support for regional research networks is highly relevant to development if the networks serve to boost countries' health research capacities and/or contribute to joint solutions for regional problems. Regional networks and programs, however, have received considerably less attention from Sida/SAREC. It is not clear what the process is for setting priorities among potential themes for regional networks, other than common interests and capacity arising from Sida/SAREC:s bilateral research cooperation.

As was done in the international health context, it would be advantageous to do environmental scanning and analyzes of health problems at the regional level vis-à-vis the health research strengths,

weaknesses, and needs of individual countries. This would help to sharpen the specific areas where regional networks or organizations would have a comparative advantage over centrally managed international programs. Sida/SAREC could also encourage its grant recipients at the international level to be more proactive in promoting regional research collaboration and/or actual regional networks, where national and regional conditions are ripe for doing so.

Effectiveness

International research programs Many significant outputs have emerged from the various international programs supported by Sida/SAREC, which have translated into improved health for the poor. They cover a broad range: new management modalities for health problems (for malaria, leprosy, onchocerciasis, diarrhoeal diseases, integrated management of the sick child); preventive interventions (against unsafe abortions, use of microbicides, new and improved vaccines); facilitating the translation of research results to policy and practice (health policy research, implementation research, development of disease management guidelines); and research capacity strengthening for LMICs (particularly for research on tropical diseases, reproductive health, national health systems functions).

Although the contribution of Sida/SAREC in these health research achievements would be difficult to disaggregate from other contributions, Sida/SAREC was consistently cited by the grantees as an important donor ("a model donor," to quote one interviewee). This is especially critical because Sida/SAREC provided core support over the long term. In the face of a growing trend for research funding that is earmarked for specific disease interventions, and that tend to skew the organization's research priorities, the strategic support from Sida/SAREC has allowed the grantees the flexibility to identify and adjust research priorities on a level playing field. Even more importantly, it allows research capacity strengthening efforts, which are rarely favoured for earmarked funding, to be programmed into the organization's overall work plan.

Within international organizations, however, where research is only one of many programs, Sida/SAREC has practiced "soft earmarking," specifying the amounts going to specific research programs within the organization. This, in effect, "protects" research and ensures that research funds are actually appropriated for purposes aligned to SAREC:s mandate. This is an effective "earmarking" practice.

In addition, SAREC has not been reticent in leveraging its grant decisions for championing issues aligned to Sida policy or strategic directions, for example:

- Top-up funding for HRP and ICDDR,B, after withdrawal of funding support from the USA as a result of the conservative government's stance on contraception and abortion issues. This move by Sida/SAREC effectively reinforced the Swedish government's position on sexual and reproductive health and human rights.
- Increase in funding for the Alliance on Health Policy and Systems Research in the light of the 2005 WHA resolution to strengthen AHPSR, and its new strategic plan for and progress toward a partnership program for AHPSR within WHO. The increase in funding reinforced Sida/SAREC:s position on health systems research as a tool for translating good research into effective policy and for scaling up effective interventions.
- At one point, withdrawal of voluntary funding to WHO as an expression of loss of confidence in the Director-General of WHO at that time.
- A decision to stop funding COHRED and GFHR by 2007 unless a joint proposal and work plan (leading towards a merger) is received.

In the latter two instances, it would be worth considering various options for channelling similar health research support before taking action, so that the ultimate end-users of the supported research programs/organizations do not lose out in the process[22].

Overall, Sida/SAREC has effectively participated in crafting policy and strategic directions and guidance in the international research programs supported. This has been done mainly through representation of Sida/SAREC in governing boards, scientific and technical advisory committees, and similar bodies. Donor harmonization among so-called like-minded donors (generally the Nordic countries and Canada) has facilitated improved action by recipient organizations on issues such as strengthening of LMICs' health research systems, gender and development, and poverty reduction strategies.

With respect to specific technical inputs and feedback on progress reports of recipient organizations, this has been quite limited, largely because of severe staffing constraints in Sida/SAREC. Swedish scientists, however, have been tapped for a number of research programs (notably WHO/TDR and ICDDR,B) to complement Sida/SAREC:s inputs. On the whole, international research programs have fairly autonomous and functional governance structures and scientific working groups in place, hence they are happy with the participation of Sida/SAREC in the crafting of broad policy and strategic directions of their programs. The Sida Special Programme on HIV/AIDS Research is exceptional in the Sida portfolio, in that it has a nine-member International Expert Group to make recommendations on project applications for two international calls for HIV/AIDS research proposals. Decisions are based on clear criteria on scientific merit, relevance, feasibility, applicability of results, extent of collaboration, comparative advantage of Swedish scientific inputs, and applicability. For other themes, however, with new recipient organizations, especially those at regional or national or project levels, substantive technical inputs and interactions are needed.

Regional thematic networks[23] As mentioned earlier, funding for regional networks has been considerably lower and given for relatively short periods, except for the support provided to ICDDR,B. For the health sciences sector, only ICDDR,B could be visited among recipients under the regional portfolio. However, the outputs from ICDDR,B are exceptional, largely because the modes of operation, collaboration and financing are international in nature, even though its mandate is equally focused on Bangladesh, and, more recently, on regional collaboration with South Asian countries[24].

More strategic thinking on the development and strengthening of regional thematic networks is needed. This could build on available analyzes and research priorities for different regions, systematically identifying specific needs and priorities in these regions. At the same time, existing strengths and weaknesses of national health research systems must be taken into consideration, since regional networks built on uniformly weak health research systems are bound to have more difficult start-up and stabilization phases, compared to more heterogeneous networks that allow knowledge to be shared and adapted among regional members. Sida/SAREC should therefore belong more open to the involvement of middle-income countries in regional collaborative programs, and not limit support to the poorest countries.

There should also be more efforts toward harnessing scientific capacity built from Sida/SAREC:s bilateral research program, as well as the international research programs it supports, in order for these to strengthen regional collaboration. This has been demonstrated to be valuable in international programs such as (a) INDEPTH Network (which includes demographic surveillance sites supported by Sida, e.g., those in Butajira, Ethiopia, the Filabavi field site in Vietnam, and the Matlab field site in Bangladesh; more recently, strengthening African demographic surveillance sites to build clinical trials

[22] For details on implications of withdrawal of support on recipient organizations, see annexed profiles on these respective organizations.

[23] Please see also separate reports on African regional networks involved in HIV/AIDS social and economic research.

[24] See annexed profile on ICDDR,B for details.

capacity for new drugs and vaccines against malaria); and (b) the Special Programme on HIV/AIDS research (which builds on the 20-year bilateral research cooperation with Tanzania and Swedish scientists to current R&D on a promising Swedish HIV/AIDS vaccine candidate now undergoing Phase I/II clinical trials). One other bilateral research cooperation program in Zimbabwe had the potential for transitioning toward a regional research centre in reproductive health, but political conditions in Zimbabwe were not right at that time. A number of African scientists will be invited to a meeting later this year in Stockholm to discuss how best to support regional research cooperation in reproductive health.

Whatever regional channels Sida/SAREC decides to support in the future, it should be noted that long-term support and strategies for sustainable resource mobilization should be considered, since LMICs, with their already limited resources, will tend to mobilize resources for their own national health research systems before addressing regional concerns[25].

Efficiency

Staff functions Sida/SAREC support for international and regional research programs in health sciences is a large portfolio and, considering the limited staff in charge of these programs, has been implemented efficiently. Harmonization of requirements for annual progress and financial reports with standard reporting systems of international organizations has greatly facilitated the work of SAREC staff. Nonetheless, the management and monitoring of more than 10 research programs, with the special program on HIV/AIDS and regional networks requiring relatively greater secretariat functions and inputs, could be significantly improved with more staff that could do site/field visits and interact with direct and indirect research recipients for longer periods. Some international programs have suggested that Sida/SAREC consider longer project grant cycles of 4 or 5 years, as is the current practice for a number of development agencies. This would facilitate medium-term planning on the part of recipient organizations and perhaps shorten negotiation and processing times of grants. This would not, however, reduce the need for regular monitoring and feedback.

As discussed earlier, Swedish scientists could complement the current lack of staff in SAREC for expert technical inputs, monitoring, and evaluation. Sida/SAREC should also consider that Swedish expertise in the international health research field is limited to a small number of scientists in a few key institutions. Therefore, a program to strengthen exposure, interest, and expertise in the most relevant disciplines will need to be systematically supported, including core support for such units/institutions.

Similarly, the involvement of scientists and/or policymakers from LMICs in the process of determining and reviewing research themes, specific lines of research, and/or project grants would be useful. To a certain extent, this has been done in the International Expert Group for HIV/AIDS research that reviews project applications (with one out of nine members being a scientist from a low-income country). On the whole, however, the participation from LMICs has been very limited in Sida/SAREC research committee and/or expert panel deliberations.

Research portfolio and channels of support The current portfolio of support in health sciences is broad, and addresses the most important health concerns related to poverty reduction and development, and the Swedish government's position on key concerns such HIV/AIDS and sexual and reproductive health and human rights.

The Special Programme on HIV/AIDS deserves mention because it has the largest share of Sida/SAREC:s support in health research. Sida's strategic focus on HIV/AIDS is guided by a strategy document from the Swedish Ministry of Foreign Affairs and Sida, *"Investing for Future Generations –*

[25] Exceptions could be high-profile regional issues that have disastrous economic consequences, such as avian influenza, SARS, and health consequences of tsunamis, where countries may be more willing to share resources and contribute to a common fund.

Sweden's International Response to HIV/AIDS" (1999) and Sida/SAREC:s document, *"A Strategy for Research Cooperation in the Area of HIV/AIDS"* (1999). The program is also managed differently, with recommendations made by an International Expert Group, supported by 1–3 independent reviews by external scientists. The more regular process of review of this program has led to changes in the way support has been funded, veering away from relatively large grants given to a few strong scientific groups, to an international call that encouraged innovative ideas and young scientists. The latter has resulted in more project grants in various topics (22 approved projects, in contrast to 6 in the previous international call), but with relatively smaller amounts of funding. Such changes deserve further evaluation since high-impact projects on HIV/AIDS (for example, Phase II/III clinical trials for new vaccines and drugs, or scaling up MTCT interventions and behavioural interventions) will need considerable funding over relatively long periods. For HIV/AIDS clinical trials, there are opportunities for funding from other sources such as EDCTP, but continued funding from Sida/SAREC will be critical since agencies like EDCTP require co-funding.

For the future, SAREC has stated that it would like to strengthen its portfolio on neonatal and child health research, occupational and environmental health, mental health, and perhaps nutrition. These plans are indeed appropriate, but there are others as well that would have to be considered in the light of the changing health context in LMICs: emerging infections (not sufficiently covered under any of SAREC:s current grant recipients), adolescent health (especially in relation to HIV/AIDS, STIs, and cervical cancer prevention), injuries and violence, knowledge management as it relates to improved policies for health systems, and health research systems, and the growing problem of non-communicable diseases.

The dilemma, of course, is how to leverage the funds of Sida/SAREC in such a way that the strategic choices of research themes for the next 5–10 years (which Sida/SAREC itself has to make, in consultation with many stakeholders) are on target. It has done this effectively through the support of international organizations with multiple donor support. There is, however, an important opportunity that has not yet been well harnessed in the health research field. As seen in Table 1 budget support from national governments has been an international trend for health systems in general, but not for health research. Recent pronouncements (from the 2004 Mexico Ministerial Summit on Health Research, the 2005 World Health Assembly, and the June 2006 high-level ministerial meeting in Accra, Ghana for example) have reiterated the call for national governments to allocate the equivalent of 2% of their national health budgets to health research. Sida/SAREC should thus continue to support national, regional, and international initiatives that work toward strengthening national health research systems. This is one important way of ensuring that strategic choices of research themes at the international level would match priorities and needs in LMICs. On the other hand, such initiatives need substantial investment: they need to be long-term and able to reasonably match the pressure of huge funds from external vertical initiatives.

There is also an obvious imbalance in the support provided to international research programs compared to regional research networks. As observed earlier, there are many reasons for the dearth of successful regional networks; this channel of support will depend on the existence of fairly well-developed national health research groups/systems and on supportive (rather than dominant and competing) international initiatives. Hence there should be stronger linkages between the international and regional programs for thematic research to Sida/SAREC:s other modes of research cooperation, especially the bilateral research program.

3.3 Cases: International Health Research Initiatives[26]

3.3.1 Council on Health Research for Development (COHRED) and Global Forum for Health Research (GFHR)

Background

The Council on Health Research for Development (COHRED) is an international nongovernmental organization founded in June 1993 at an international conference on health research, initially linked with UNDP and later on registered as a Swiss NGO. It took over from the Task Force on Health Research for Development, which was tasked to mobilize the initial global actions in response to the call to action from the Commission on Health Research for Development. The Commission, which presented its landmark findings and recommendations at a Nobel Conference in 1990, saw the need for a mechanism for international cooperation in health research that would promote critically needed global health research and essential national health research (ENHR). Although WHO was proposed at one point as the base to house this international movement, political conditions at WHO did not allow this to happen.

Two other publications, the World Bank report in 1993 that focused on the health sector and the 1996 report of the WHO *Ad Hoc* Committee on Health Research Relating to Future Intervention Options, focused on the heavy disease burden of the poor, and the need to correct the global '10/90 gap' in health research to address the health problems of the poor. A global platform to discuss these issues was proposed, but again, political conditions in WHO were not ripe for such a global forum to be housed in WHO, even though the prime movers of the *Ad Hoc* Report were largely from WHO. It should also be noted that a CGIAR-like model was considered as a possible mechanism but was shelved because of fears of "Northern-driven" agendas, emphasis on international centers of excellence over indigenous health research, and the considerable health research investment needed. In 1997, a preparatory committee was formed to lay the groundwork for the Global Forum on Health Research (GFHR), which was formally established in January 1998 and registered in June 1998 as a foundation in Switzerland.

These two organizations were conceived as having complementary roles: (1) COHRED–which champions "countries first" and focuses on strengthening national health research systems and essential national health research; and (2) GHFR–which advocates for stronger support for global health research that fills important gaps in addressing the overwhelming burden of disease in LMICs. Thus they have common goals, but begin from different vantage points and use different strategies and modes of operation. They do have overlapping activities that need good collaboration and joint action.

The relationships between these two organizations, however, have not always been easy, partly because of tensions between country vs. global interests, differing paradigms and work styles, personalities involved, and politics. Be that as it may, it should be noted that many of the sponsors, brokers, and interested parties in the two organizations are one and the same, including Sida/SAREC. From Day 1 of the Commission, SAREC was a funder and sponsor of COHRED and GFHR (as well as the Alliance on Health Policy and Systems Research), and has tried to broker a closer working relationship between the two, especially at the International Conference on Health Research in 2000 and more recently (as discussed above).

[26] These two organizations are discussed together because of issues raised by Sida/SAREC that have implications for both organizations. In addition, the Sida memorandum dated 3 June 2005 covers three international health research initiatives: COHRED, GFHR and the Alliance on Health Policy and Systems Research. The latter, although it has an independent Board, operates within the EIP Cluster of WHO and is discussed in the report on WHO. *Note:* M.A. Lansang (member of the Evaluation Team) was a member of the Board of all three organizations from their inception, completing at least two successive terms on these boards.

The Sida/SAREC budget support for the two organizations is:

COHRED: 42 MSEK since 1993–04
4.5 MSEK for 2005
3.0 MSEK for 2006

GFHR: 32 MSEK since 1997–04
4.5 MSEK for 2005
3.0 MSEK for 2006

In June/July 2005, Sida/SAREC informed the two organizations about the reduction of funding for 2006, and that it would no longer consider funding them beyond 2006 unless the two developed a joint proposal that would lead "toward a merge." Sida/SAREC viewed this as a "win-win" situation, where GFHR would be more likely to interact with and take root in country-level health research systems and stakeholders, and where the visibility and viability of COHRED would be more likely enhanced. This ultimatum was reiterated by Sida/SAREC in March 2006 upon further discussions with the Board members of the two organizations, including like-minded donors supporting COHRED and GFHR. Eventually, the two organizations agreed to contract a management consultancy firm toward the end of 2006 (with a report expected in March 2007) to study various options for partnership and areas of joint venture by the two organizations, possibly leading to a merger in the future.

In the absence of a joint proposal eventually leading to a merger, and unless there are new funders on board, the withdrawal of Sida/SAREC support by 2007 would mean a reduction of ~33% in revenues for COHRED, and ~10% for GFHR. For COHRED, this is a significant loss, but the "losers" would ultimately be the low-income countries if COHRED were to cut back on its workplan and operations. For GFHR, it would mean some economies in operations, but more importantly, it would lose the expertise and distinctive policy advice from Sida/SAREC in its Board, known to consistently champion national priorities, particularly those of the poorest countries.

The ultimatum by Sida/SAREC for an eventual merger was considered by both organizations as rather directive and done without adequate dialogue and consultation with their respective Boards and officers. The decision was also perceived as having been done without regard for the growing détente between the two organizations as a result of efforts of the new management teams. These have been in the form of, among others, governance (joint Board meetings and/or cross-invitations to Board meetings), administrative operations, overlapping interests (for example in research capacity strengthening, national health research systems, monitoring health research financial flows), joint policy publications, joint meetings/conferences, and in September 2006, adjacent offices at the Ecumenical Centre in Geneva. Moreover, COHRED, because of its organizational setbacks in 2004–06, would need room and time to strengthen itself and negotiate from a position of strength.

In the meantime, the two organizations have had at least two successful joint proposals: one is a long-standing arrangement with the Swiss Agency for Development and Cooperation, and the other is a more recent joint proposal approved by Irish Aid amounting to a total of €1.8 million for a three-year period. The latter, which splits the grant equally between COHRED and GFHR, will partially offset the loss of funding support from Sida/SAREC in 2007.

Organizations' Activities and Sida/SAREC:s Role

COHRED is led by an 18-member Board, where the majority of members are from low- and middle-income countries (LMICs) nominated by their respective governments. In the first decade, COHRED strongly advocated for equity in health research, focusing on the priorities of LMICs on health research, providing them with "tools" for ENHR, such as priority setting and research management, and publishing Policy Briefs on important issues for national health research systems. In its third stage of

organizational development, and with a new director in place in March 2004 (after some management problems with the previous director and an interim management for 16 months), COHRED has a full agenda of supporting national health research systems in LMICs (emphasis on LICs). This includes "responsible vertical programming" (in view of multiple initiatives and partnerships imposed on LMICs), fostering collaborations between LICs and MICs, improving human resources for health research especially in sub-Saharan Africa, and improving research communications. Sida/SAREC, however, has continued to express concern about the visibility of COHRED in the international health research scene.

GFHR is led by a Foundation Council currently consisting of 24 members, who represent GFHR:s nine constituencies (government policymakers, multilateral organizations, bilateral aid agencies, international foundations, national and international NGO:s, women's organizations, research-oriented bodies, private sector companies and the media). GFHR has consistently played the role of a catalyst to promote global health research and mobilize funds for correcting the '10/90' gap. It does this mainly by doing analytical work on global health research priorities, disseminating results, and refining the methods and necessary data for informed priority setting, monitoring global financial flows for health research, holding annual Global Forum meetings, and promoting new initiatives that address important global health research gaps. In addition to the publication and dissemination of its influential analytical work, perhaps the best known of GFHR:s activities is the annual Forum, where progress on health research initiatives, gaps in health research, funding flows, national health research systems and regional forums for health research have been discussed. Sida/SAREC has expressed concern about suboptimal representation of speakers and participants from LMICs in these forums. The most recent Forum in Mumbai, India (Forum 9), however, had more visible representation from LMICs, particularly from the Indian subcontinent.

SAREC interactions and monitoring. SAREC has been represented in the boards of both COHRED and GFHR since inception. Through these Board members, Sida/SAREC:s policy positions on global, regional, and national health research have been well-articulated, particularly drawing attention to neglected areas of health research policy and leadership and operational issues that highlight the disadvantaged position of LMICs in global research. Since the 2000 International Conference on Health Research held in Bangkok, Sida/SAREC has expressed increasing impatience in the slow action toward greater research cooperation and engagement among the three leaders for global health research based in Geneva (WHO, COHRED and GFHR). This was exemplified by the 2004 global events in Mexico City, where there was a parallel rather than converging Ministerial Summit on Health Research (sponsored by WHO) and Forum 8 (sponsored by GFHR), and minimal visibility of COHRED.

In addition to Board presence, a Sida/SAREC officer, who acts as focal point for these two organizations as well as the Alliance on Health Policy and Systems Research, also visits the secretariat once a year for discussions on proposed work plans and budgets and work progress. SAREC does not require a separate reporting system for annual reports from COHRED and GFHR, but does require audited financial reports and receives all copies of evaluations mandated by the Board.

An interim external evaluation of COHRED was carried out in 1996, followed by another external evaluation in 2004. In the latter, the relevance and necessity of COHRED was emphasized "to move forward the global health agenda of increased equity in health research for development". It cited, however, the slow transition of leadership, the need for greater visibility and stronger management, governance, and partnerships as challenges for the future. These are currently being addressed by the new management.

An external evaluation of GFHR was done in 2001. One of the recommendations of the evaluation team was continued support and increased funding for the GFHR, continuous improvement of the annual Forum meetings and the "marketplace" concept, strengthening and clearer focus for its analyti-

cal work, better entry and exit strategies for research initiatives, re-examination of its interactions with WHO, and increased collaboration with COHRED. The team, however, did not find "any compelling reasons for recommending a merger between the two organizations" at that time. Another external evaluation began in September 2005, the results of which was expected by late 2006.

Lessons and Recommendations

- COHRED and GFHR have appreciated the long-term commitment and core support from Sida/SAREC since the founding of these organizations.
- Sida/SAREC:s focus on the priorities and needs of health research systems in LMICs has been a major boost to the interests of LMICs, and again much appreciated by both organizations, particularly COHRED.
- Continued support of COHRED and GFHR is necessary to pursue the agenda of equity in health and development globally, particularly with the surge of funds potentially available for health research (BMGF, the Global Fund) but with weak absorptive health research capacities on the ground. As international NGO:s with the flexibility and agility to engage with global and LMIC partners without the limitations of government and UN-based civil service bureaucracies, and without health program and service priorities and biases, they serve as a healthy and independent counterpoint and force in stimulating global debate and fostering the voice of the disadvantaged. In this regard, it is recommended that Sida/SAREC consider a more realistic time frame and reopen the door for further dialogue on the way toward a healthy merger. Although a memorandum of agreement was signed in March 2005 between COHRED and GFHR towards "intensive collaboration," Sida/SAREC is correct in asking for a clear timeline of progress toward a concrete set of measurable indicators leading to "intensive collaboration" and eventually perhaps, a merger. The latter will take time, will involve major organizational overhaul (and possible retrenchments), and will have legal implications for the two duly constituted organizations under Swiss law.
- Regional health research forums, as fostered by COHRED and GFHR, have not progressed as expected and show little signs of long-term sustainability. This suggests that the poorest countries with weak national health research systems and institutions will need to focus on national and subnational strengthening in order to provide some solid foundation for regional collaboration. On the other hand, LMICs with considerable strengths in health research (India, China, Brazil, South Africa), although not ordinarily the focus of Sida/SAREC support, should be encouraged to collaborate with LMICs with weak health research systems and capacities.
- Sida/SAREC should continue to actively engage in efforts to improve the global architecture for health research cooperation. With its guiding policies and values for research cooperation, it plays a critical and influential role in balancing the forces affecting global health research and tipping them in favour of the poor and other country-based stakeholders in LMICs.

3.2.3 World Health Organization

Background

WHO: functions and structure. The World Health Organization is the United Nations' specialized agency for health, Established in April 1948, the mission of WHO "is the attainment by all peoples of the highest possible level of health." This involves disease control and prevention, health promotion, global health security, and development. As the coordinating authority for 192 member states in the field of international public health, the core functions of WHO, as stated in WHO:s 11th General Program of Work (GPW) for 2006–2015, are as follows:

- Providing leadership on matters critical to health and engaging in partnerships where joint action is needed.

- Shaping the research agenda and stimulating the generation, translation, and dissemination of valuable knowledge.
- Setting norms and standards, and promoting and monitoring their implementation.
- Articulating ethical and evidence-based policy options.
- Providing technical support, catalyzing change, and building sustainable institutional capacity.
- Monitoring the health situation and assessing health trends.

WHO works with the rest of the UN system in attaining the goals of the 2000 United Nations Millennium Declaration. In particular, the health-related goals and targets of the MDGs are linked to WHO:s GPW until 2015.

The highest decision-making body of WHO is the World Health Assembly (WHA), which consists of delegations from member states who meet in May each year. In addition to appointing the WHO Director-General, the Assembly elects 32 members to the Executive Board for 3-year terms. The Executive Board, which meets twice a year, facilitates the work of the Assembly by advising on decisions and policies taken up at the Assembly, and following up on actions taken on WHA resolutions and other substantive policy matters. The WHO secretariat has about 3,500 staff, working at the Geneva headquarters, in six regional offices, and in close to 150 countries.

WHO and health research. Health research is an international public good and forms an integral part of WHO:s stewardship role in international health, as reflected in its core functions. The comparative advantages of WHO as a key player in health research have been identified as: global advocacy and convening roles, credibility and neutrality, access to experts, close collaboration with ministers of health worldwide, and intramural technical and programmatic expertise. In reality, however, these comparative advantages have not been optimally harnessed; over the years, the palpable role of WHO in health research has been primarily through its special programs: initially the Special Programme of Research, Development and Research Training in Human Reproduction (HRP), which was established in 1972, followed by the Special Programme on Research and Training in Tropical Diseases (TDR), established in 1975. Up to this time, these two special programs comprise the bulk of WHO:s investments in health research, mostly from extra-budgetary resources. In the 1980s, there were more research programs in WHO, notably in the areas of diarrhoeal diseases and acute respiratory infections and child health. There was, however, no strong desire and will, at least from the top echelon of WHO, to take the lead in responding to the challenges and recommendations released by the Commission on Health Research for Development in 1990 (see the institutional profiles on the Council on Health Research for Development and the Global Forum for Health Research).

The winds of change came with the new leadership in WHO in 2000, which brought on the promise of a knowledge-based organization and advocacy for the use of knowledge and evidence in policy-making and programs. A new cluster on Evidence and Information for Policy (EIP) was created, and within it, a new Department of Research Policy and Cooperation. Also, the vaccine R&D portfolio expanded, as did research in child and adolescent health, and other technical programs such as non-communicable diseases.

Despite these gains over 5 years, the culture and practice of expanding and applying the knowledge base to global health needs, especially of the poor, have not permeated effectively throughout WHO. WHO has yet to explicitly spell out in real terms its organization-wide and global strategy for synthesizing, applying and using knowledge to advance health, especially for LMICs. The WHO Ministerial Summit on Health Research, held in 2004 in Mexico City, reemphasized the need for research, especially health systems research, to scale up effective interventions and to meet the MDGs by 2015. These recommendations were formalized as WHA resolutions in 2005. In May 2006, a position paper

on "WHO:s role and responsibility in health research" was presented to the WHA. Although approved in principle, there were several issues raised, particularly on implementation strategies, which essentially led to the deferment of a definitive WHA resolution on the matter of a WHO-wide policy and strategy for health research.

Sida/SAREC Budget Support for Research in WHO

Since SAREC:s inception, contributions have been made to WHO for research, initially for TDR and HRP, and eventually expanding to technical programs for child and adolescent health, vaccine research, noncommunicable diseases, and research policy and cooperation. Beginning in 2006, two research activities previously supported through separate programs were channelled through WHO: (1) the African AIDS Vaccine Programme (AAVP), and (2) the Alliance for Health Policy and Systems Research (AHPSR). An entirely new research area was added, the Programme for Gender, Women and Health (GWH). Sweden's total voluntary contributions amounted to 240 million SEK from SAREC:s creation up to 2005 (Table 3).

Table 3. Sweden's contributions, in million SEK, to research at WHO for 2002–05.

Year	2002	2003	2004	2005	2006	2007
Contribution through main agreement						
Communicable Disease Cluster						
– TDR	23	23	23	23	23	23
Family and Community Health Cluster						
– HRP	11	11+3	11	11+3	13	13
– Child and Adolescent Health and Development (CAD)	4	4	4	4	4	4
– Initiative on Vaccine Research (IVR)	3	3	3	3	3	3
Noncommunicable Disease and Mental Health Cluster						
– NCD Surveillance	1	1	1	1	1	1
Evidence and Information for Policy Cluster (EIP)						
– Research Policy and Cooperation (EIP)	3	3+0.8	3	3	4	4
Total contributions to WHO, 2002–05	**45**	**48.8**	**45**	**48**		
Activities previously supported through separate agreements					**Support through WHO**	
Family and Community Health Cluster						
– African AIDS Vaccine Programme (AAVP)	3	1	1	1	1	1
– Alliance for Health Policy and Systems Research		3	3	3	5	5
Activities previously not supported						
Family and Community Health Cluster						
– Gender, Women and Health GWH					1	1
Proposed contributions, 2006 –07					**55**	**55**

Source: Sida Memo 2006-05-02, Continued voluntary contribution to research activities within WHO 2006–07.

All research programs supported by Sida/SAREC in WHO have a broad base of donors, hence the Swedish contribution generally comprises 1–22% of the operating budgets of these programs.

It should be noted that in addition to research support, Sweden, as a member state of WHO, pays a regular fee to WHO, through the Ministry for Health and Social Affairs. For 2005, this was 32 million SEK. Sida also has a main agreement with WHO for Sweden's voluntary contributions, which, for 2004–05 was 100 million SEK per year, with 45 and 48 million SEK of this appropriated for research in 2004 and 2005, respectively. Other separate agreements in 2004–05 amounted to 40 million SEK, while the Foreign Ministry provided another 337 million SEK for work on HIV/AIDS, WHO:s work with the Global Fund, and polio eradication.

As can be gleaned from the above, Sida/SAREC pledges funds for a two-year time frame. According to the research programs interviewed, this is very helpful in realizing their biennial work plans and budgets. Like other organizations/institutions interviewed, they opined that a longer pledging period of, say, 4 years—as in the case of Netherlands' support, would provide more stability and better medium-term projections. In fact, for donor countries such as Sweden, a pledge is reportedly "as good as money in the bank", and has allowed programs, since the beginning of this year, to use up to 100% (previously 80%) of such pledges for that year, even if the actual funds have not yet been remitted. Sida/SAREC did, in fact, seriously consider a cycle of 4 years; it may be reconsidered as an option for the future.

In general, WHO:s management has encouraged Sida/SAREC (and other donors as well) to provide contributions in the form of core support, to be appropriated according to its general program of work. Sida/SAREC, however, has chosen to do "soft earmarking" of funds for research, specifying the research programs and corresponding amounts to be received. This is advantageous for those departments and programs where research is a major activity, and "protects" research interests vs. other competing priorities in WHO[27].

What would be less desirable would be earmarking of funds up to research project levels, which other funding agencies are increasingly practicing. This tends to skew priorities and activities to donor interests rather than the overall programmatic interests of the department/program, as determined by its governing boards and/or advisory/technical committees. Sida/SAREC has expressly urged the special programs to strive to seek a balance between core funds and project-earmarked funds in their resource mobilization efforts.

WHO in Relation to Research and Swedish Research Cooperation

General framework. The government of Sweden is strongly committed to the UN system and affirms UN's critical role in leading the global community toward the attainment of the MDGs. As such, Sweden holds a "positive view of the mandate held by WHO as the global normative health organization, and of its role as the leading global health agency." Thus it has forged formal agreements with WHO for development cooperation, the latest being "Sweden's Development Co-operation with WHO: A strategy for the period 2002–2005." In this strategy framework, Swedish priorities for development cooperation were discussed, including: institutional issues, health priorities, research, and humanitarian work.

The agreement with WHO, which covers a two-year period, is the result of a series of iterative discussions and consultations, beginning with meetings with the Health Division of Sida to agree on 6–7 broad areas of support including research (and enhancement of research in WHO in particular), with the Foreign Ministry and Ministry of Health & Social Welfare as well as a representative from the Swedish Permanent Mission in Geneva, and with the Assistant DG for Administration at WHO. SAREC then invites cooperating programs within WHO to submit their applications, which are then evaluated by an external expert group (usually six Swedish professors from various technical areas), which then recommends priorities for research cooperation. An internal memorandum is then drafted

[27] A case in point, as cited by WHO/HRP, was when the Dept. for International Development (DFID, UK) gave up earmarking its contributions to HRP. Prior to this decision, HRP was receiving ~£2–3 million a year, but received only ~£600,000 after non-earmarking. As a result, DFID has reverted to soft earmarking of funds for research.

for processing at the SAREC departmental level and at Sida's Research Committee (see general process for this in the main evaluation report).

For research, Sweden asserts that WHO:s role should be strengthened, particularly in promoting the global research agenda, national research as part of national health systems, and in drawing action on neglected areas of research and knowledge gaps. Hence as outlined in the previous section, it has consistently provided support to various research programs and departments within WHO or linked to WHO, in the order of 45–55 million SEK per year. To the recollection of some of the WHO recipients, there was only one year where Sida/SAREC had withdrawn its support as a signal of loss of confidence in WHO during the time of then Director-General, H. Nakajima.

During the terms of DGs G. Brundtland and J.W. Lee, there was a restoration of confidence in WHO, and its reinvigoration as a knowledge-based public health agency that has firmly pushed for health in the international development agenda. Pleased in particular with the 2004 Ministerial Summit on Health Research and the "Mexico Statement on Health Research", Sida/SAREC has advocated for increased organization-wide engagement in health research (see, for example, activities of the Dept. of Research Policy and Cooperation, and developments in the Alliance on Health Policy and Systems Research), and a more explicit strategy statement on health research.

Sida/SAREC interactions and monitoring. A delegation from the government of Sweden attends the WHA in May each year, usually consisting of the Minister of Health and Social Affairs and representatives of various interests including Sida, the Ministry of Foreign Affairs, and national scientific and medical bodies and institutes. In the 2006 WHA, they, together with like-minded OECD countries, endorsed the position paper on "WHO:s roles and responsibility in health research," but agreed that it needed some revision and elaboration, specifically on strategies for action, before it could be approved as a WHA resolution.

In addition to the WHA, Sweden had a seat on the WHO Executive Board in 2000–02, part of an arrangement of having Nordic countries represented on a rotating basis. For the research programs that Sida/SAREC funds, SAREC:s position on policy directions and strategies has been effectively expressed in the governing bodies of the special programs – such as the Joint Coordinating Board (JCB) of TDR and the Policy and Coordination Committee (PCC) of HRP, standing committees of donors/co-sponsors, and advisory committees (such as the Scientific and Technical Advisory Committee of TDR). For smaller research programs, the responsible SAREC officer for WHO has at least annual meetings and more frequent informal discussions with the WHO staff concerned, in addition to SAREC:s participation in the annual Meeting of Interested Parties for WHO:s 36 Areas of Work.

For specific technical areas, various Swedish scientists have been tapped by the research programs for membership in technical/advisory committees, conduct of research projects, and/or training of scientists from LMICs (in particular, see section on TDR below).

SAREC does not require a separate reporting system for annual reports from each of the program recipients in WHO, but does require annual progress reports (released by these programs as standard procedure), audited financial reports, and receives all copies of evaluations mandated by the governing and/or advisory bodies.

Some WHO research programs supported by Sida/SAREC

1. Department of Research Policy and Cooperation (RPC)

The Department of Research Policy and Cooperation was created in 2000, as recommended by the WHO Working Group on Policies and Strategies to Support WHO in Health Research in 1999. RPC, which is under the cluster on Evidence and Information for Policy, has, among its key objectives, the promotion of research and better research practice within WHO through better information

systems, coordinating mechanisms and standardized procedures; advocating for the importance of health research in human development; and developing effective linkages with other health research organizations. It also serves as the secretariat to the Advisory Committee on Health Research (ACHR), which in recent years has become more active in guiding WHO on key issues of research policy and catalyzing action on these.

Since inception, Sida/SAREC has supported RPC, and whose funds are earmarked in the agreement with WHO. This helps to "protect" smaller departments like RPC, which have very small operational budgets intramurally to support their work plan and programs. Sida/SAREC:s openness to "nontraditional" areas of research support such as translation of research and evidence to policy and practice (TRIPP) has also been perceived as facilitating RPC's and WHO:s core function of setting norms and standards for the conduct of global health research.

A major achievement of RPC was organizing the Ministerial Summit on Health Research in Mexico in November 2004, where 52 countries signed the "Mexico Statement on Health Research." The statement provided three key policy directions for RPC: (1) strengthening of health systems research (see also Section below on the Alliance on Health Policy and Systems Research, which is linked to RPC/EIP); (2) strengthening public confidence in science—to which RPC has responded by establishing the International Clinical Trials Registry Platform; and (3) translating evidence to policy and action—to which RPC has responded by establishing the Evidence-Informed Policy Network (EVIPNet) in Asia (seven countries) and more recently in Africa (eight countries). In addition to core support for RPC, Sida/SAREC is also supporting the Alliance and has supported the launch of EVIPNet in Africa.

Also as an offshoot of the Ministerial Summit, WHA Resolution 58.34 was adopted in May 2005, asking for an assessment of research at WHO and the development of a position paper on WHO:s roles and responsibilities in health research. As far back as 2003, Sida/SAREC had suggested an overview of WHO:s research functions; it thus financed an overview study on research activities in WHO, conducted by ZN Kabir and J. Holmgren in 2005. Perhaps reflecting the disinterest/resistance of a large part of WHO to health research in general, the survey conducted in June 2005 had a non-response rate of 51% out of the 35 technical departments, although seven departments were involved in the in-depth interviews. Among the salient findings from the overview were: lack of priority for research as a core function of WHO; lack of infrastructure to support research; lack of coordination of research activities within WHO; and lack of a formal mechanism for research priority setting as well as lack of expertise in research management.

Even as the overview study was happening, RPC was leading an effort to develop a position paper on WHO:s roles and responsibilities, holding wide consultations in the headquarters and in the regions. The position paper was then presented to the Executive Board in January 2006 and presented to the WHA in May 2006. Although accepted in principle, several resolution amendments were proposed by Sweden and Norway, and other countries requested an organization-wide strategy for health research, to be presented at the WHA in 2007. Given the wide consultations and considerable resources to develop the WHO strategy for health research, and given the next Ministerial Summit on health research in 2008 (also organized by RPC), the RPC director, T. Pang, has estimated that the full strategy would only be ready for presentation to WHA in 2009.

In the meantime, the philanthropic and private resources for health research outside WHO continue to exponentially increase, along with new vertical initiatives and partnerships that over-saturate the absorptive capacity of LMICs, even as Sida/SAREC watch for positive signals on a recommended Global Forum – COHRED merger and as WHO slowly puts its house in order.

2. UNICEF/UNDP/World Bank/WHO Special Programme on Research and Training in Tropical Diseases (TDR)

TDR was established in 1975 as a special program in WHO, as agreed in a Memorandum of Understanding (1978, amended in 1988, 2003 and 2006) signed by its four cosponsors and cooperating parties. It engages in research and development to combat a portfolio of major diseases of the poor (currently 10 diseases), and in research training and strengthening of disease-endemic countries. It has had a long history of R&D and research capacity strengthening for tropical disease research, primarily achieved through its consistent engagement with scientists globally, and through public-public and public-private partnerships. Among these successes are: the development of multidrug therapy for leprosy, ivermectin for control of onchocerciasis, miltefosine for the treatment of visceral leishmaniasis; large multi-country studies to support policy decisions on effective interventions such as insecticide-treated bednets for malaria control; artemisinin combination treatment for malaria; fumigant canisters for the control of triatomine bugs in Chagas disease; implementation research to improve community-based malaria control and ivermectin distribution in the periphery. All of these are underpinned by a long and illustrious record of individual and institutional strengthening of indigenous scientists in LMICs.

TDR is governed by the Joint Coordinating Board (JCB), which meets once a year in June, although special sessions can be called. It has 31 members, each with 3-year terms, consisting of representatives from the four-cosponsors, 12 governments selected by the WHO regional committees, 12 governments from TDR's resource contributors, and three selected by JCB from among the cooperating parties. Sweden currently has a seat on the JCB as one of the cooperating parties. There is also a Standing Committee consisting of representatives from the four cosponsors, that oversees the management and financing of TDR, and meets three times a year, together with chairs and co-chairs of JCB and the Scientific and Technical Advisory Committee (STAC). The latter, consisting of 15–18 scientists with 3-year terms, oversees TDR's scientific activities and meets once a year in February and reports to the JCB in June each year. A Swedish scientist (currently working in Sida/SAREC) currently sits on STAC.

TDR considers Sida/SAREC a "model donor" in many ways. It provides consistent and long-term core support critical to the program and its mission, which allows TDR to leverage this for mobilizing other resources. Sida/SAREC provides inputs through its participation in TDR's governance structure (rather than do micro-level management), and has encouraged TDR to actively participate in the WHO working group that will develop a WHO research strategy. TDR's impressive management information system shows that Sweden has contributed a total of US$71,660,553 to TDR from 1974 to December 2005. Currently, it is the second largest donor, next to Norway. A total of US$4,208,866 has been awarded for 96 projects in Sweden, producing 150 publications. Thirty trainees from disease-endemic countries have been hosted by Swedish institutions and 37 Swedish scientists have participated in TDR scientific committees.

There are opportunities for Sida/SAREC to use TDR as potential service providers (for example, as peer reviewers for screening grant applications, as the European Commission has done) and as a source of knowledge exchange on tropical diseases. Also, there seems to be little interaction between TDR, its scientists, and the graduates of Sida/SAREC:s bilateral research program; both would benefit from further interaction and networking.

With respect to monitoring, Sida/SAREC is generally happy with receiving annual progress reports that TDR publicly releases, along with general financial reports. Again, this is an arrangement that TDR regards as good practice, as long as Sida/SAREC has confidence in the oversight functions of JCB, the Standing Committee, and STAC. External evaluations of TDR have been generally *ad hoc*, as requested by JCB and STAC. The most recent one was carried out in 2005–06, while previous ones were done in 1988, 1993, and 1998.

The core conclusions of the 2006 final report of the external evaluation team, presented to the JCB in June 2006, were broadly endorsed by the JCB but with some caveats. As a response, TDR has been asked to present its new 10-year vision and strategy at a stakeholders' meeting in October 2006, followed by a special session of JCB. The most important points endorsed by the JCB from the external evaluation were: TDR's research advocacy, coordination, and stewardship role in the face of a rapidly changing landscape of tropical disease research globally; flexibility in the disease portfolio of TDR, while ensuring support for neglected research areas in its core set of diseases; more engagement with WHO regional offices and stakeholders; innovative strategies for research capacity strengthening; and governance and management issues to improve TDR's efficiency.

3. UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP)

HRP was established in 1972 as a special program within WHO, evolving from the Human Reproduction Unit within WHO:s Division of Family Health. The midwives in the creation of HRP were Sweden (notably Prof. Sune Bergstrom) and the Ford Foundation; as early as 1971, Sida provided funds for a feasibility study that eventually led to HRP. In 1988, UNDP, UNFPA, and the World Bank joined WHO as cosponsors of HRP. With the creation of the Department of Reproductive Health and Research (RHR) in November 1998, HRP and another pre-existing unit in WHO – the WHO Division of Reproductive Health – were brought together as one entity with programmatic, research, and training functions.

The overall objective of HRP is "to contribute, through research and support to program development, to a reduction in morbidity and mortality related to sexual and reproductive health, and to implementation of accessible, equitable, and high-quality reproductive health services in countries." Its work is guided by internationally recognized agreements: the new WHO global strategy to accelerate progress toward the achievement of international goals and targets in reproductive health, as approved by the WHA (May 2004); those adopted at the International Conference on Population and Development (Cairo, 1994) and the Fourth World Conference on Women (Beijing, 1995), and their follow-ups 5 and 10 years hence; and the MDGs, the attainment of which is underpinned by sexual and reproductive health.

HRP has maintained a leadership role in reproductive health research over time. In the most recent external evaluation, covering the period 1990–02, and conducted in 2002–03, the impact of HRP's work went beyond 2,500 publications to the actual use of the HRP Strategic Approach in 18 countries, application of medical eligibility criteria for contraception in 50–60 countries, production of 21 best practice guides, and research capacity strengthening and networking, especially in LMICs. More importantly, it was a major contributor to the shift from family planning and demographic goals to the broader agenda of reproductive health, as well as the mainstreaming of gender and women's perspectives in reproductive health and research.

But it has not been easy for HRP. There has been a steady decline in its budget over the years, although the prospects are brighter for the current biennium and beyond. For example, the approved biennial budgets vs. funds received for the period 1998 –03 showed shortfalls: US$40.7 million budget vs. 83% actual resources (1998–99); US$39.8M budget vs. 84% (2000–01); and $40.3 vs. 66% (2002–03), and a similar trend for 2004–05. Downsizing led to the departure of as many as 20 professional and general staff, both regular and short-term. Sida/SAREC:s contribution also waned, from ~US$1.8 to 2.5 million before 1995, to nil in 1995[28], and then a gradual rise from 1996 to its current level of ~US$1.7 million for 2006 and also for 2007.

[28] The result of a political decision to stop almost all voluntary funds to WHO because of dissatisfaction with then DG H. Nakajima.

As with other research programs, HRP cites two positive aspects of Sida/SAREC:s contribution: (1) the stable support over the years (except for the 1995 plunge); and (2) its provision as core support, which allows HRP flexibility in the planning and implementation of its research program. Although funds from other sources such as philanthropic foundations have increased from ~1–3% to 12%, usually provided as project-designated funds. In general, however, the proportion of designated funds in the total budget has remained low at 8 – 10%. In 2002–03, for example, the largest donors were from eight OECD countries (except the USA), and China, India and Thailand. Sweden ranked third highest among these donors.

Sida/SAREC:s role in taking up the funding slack after the withdrawal of funding support from the USA in 2002 is also worth noting. It provided a top-up of SEK 3 million in 2003 and 2005. In its participation in the governing body of HRP, the 32-member Policy and Coordination Committee (PCC)[29], Sida/SAREC has emphasized its broad view of all aspects of sexual and reproductive health, especially abortion and sexual and reproductive rights. At the WHO Executive Board, it expressed its dissatisfaction with the WHO decision not to publish the book (presumably because of a strong US government lobby), *Preventing Unsafe Abortion and Its Consequences: Priorities for Research and Action,* edited by two HRP staff, based on the proceedings of an HRP-sponsored consultation on priorities and needs in the area of unsafe abortion, held in Geneva in August 2000[30].

Swedish scientists participate in HRP activities as members of scientific committees, temporary advisers, or project investigators. At the time of the interviews with HRP staff, no information was readily available on possible interactions with trainees and grantees from Sida/SAREC:s bilateral research cooperation program.

Monitoring and evaluation activities and requirements of Sida/SAREC for HRP are similar to those of TDR and other WHO research programs.

4. Department of Child Health and Adolescent Health and Development (CAH)

The new CAH structure, implemented in 2005, has three major themes: Newborn and Child Health and Development (NCH), Adolescent Health and Development (ADH), and Country Implementation Support (CIS). CAH research has been traditionally associated with Newborn and Child Health, and the type of research carried out is described by CAH staff as "knowledge for action," mostly in the form of operations research and implementation research. Around 80% of child health research is on diarrhoea and acute respiratory infections, generally relating to field applications and/or scaling up of effective interventions. Around 20% is devoted to neonatal research, ranging from effectiveness and efficacy studies to implementation research. Indeed, CAH has been associated with significant research publications on zinc supplementation, infant feeding practices, interventions for ARI, IMCI, and community-based interventions to improve neonatal health. Also noteworthy is a recent decision of CAH to adopt (by December 2006) a more systematic process of research priority setting, based on a methodology being tested by the Child Health and Nutrition Research Initiative (CHNRI), a recently registered nonprofit foundation in Switzerland, facilitated by the Global Forum on Health Research.

Although research has not been a major focus of Adolescent Health to date, a comprehensive review of the evidence on various interventions for adolescents most at risk for HIV/AIDS was conducted over a two-year period and will be presented at the International AIDS Conference in Toronto this year. This work has been able to identify three main entry points for health services research related to HIV/AIDS and young people, and work on this started in 2006. CAH is looking for potential funders for the work on young people at risk for HIV/AIDS, but if funds are insufficient, some of the available research resources in CAH will be redirected to this new focus.

[29] The PCC consists of the 11 largest country donors, 14 regionally elected countries, 2 PCC-elected cooperation parties, IPPF and the 4 co-sponsors. There is also a Standing Committee, consisting of representatives from the four cosponsors.

[30] The book was eventually published by the Guttmacher Institute in New York, with support from the Ford Foundation, and made available online via www.guttmacher.org (which has links to the HRP website).

Sida/SAREC has provided support to CAH since 1978, again as core support for research. This has been at the level of ~US$1 – 1.9 million per biennium, and constitutes ~20% of the CAH research budget. As with the special programs, this long-term core support was cited as important to the stability of CAH operations. Technical inputs from Sweden are mainly through Swedish scientists who are invited to sit on technical committees.

From the point of view of Sida/SAREC, it would be desirable to have a more expanded research portfolio for child health (e.g., through WHO or alternative channels such as CHNRI). Nevertheless, it is hopeful about the more visible reporting of research activities both in CAH annual progress reports and work plans, and is monitoring this closely.

5. Initiative on Vaccine Research (IVR)

IVR is part of the Department of Immunization, Vaccines and Biologicals (IVB), with the mission of responding to one of IVB's strategic areas of work, namely that of "accelerating innovation for the development and optimal use of safe and effective vaccines and technologies against infectious diseases of public health importance." IVR thus has three main roles: (1) a normative and facilitator role in advocating knowledge-based priorities for vaccine research, identifying gaps, and providing guidance for best practice in vaccine trials; (2) promotion and support for product development for WHO priority vaccines and technologies, including strengthening capacity for the conduct of GCP-compliant clinical trials in LMICs; and (3) implementation research to support the introduction and delivery of new vaccines that are cost-effective. Along these three lines, IVR is engaged in at least 13 disease areas with candidate vaccines and three technology and capacity-building projects. For 2004–05, IVR reported full or almost complete achievement of 72 of 85 milestones.

Sida/SAREC has provided a fixed amount of US$800,000 per biennium to IVR. This is deemed critically important to IVR, which has a budget that is ~60% earmarked by funding/donor agencies for specific vaccine projects. Activities related to the first (normative and regulatory) and third (implementation research) functions of IVR are generally not funded and thus rely heavily on core support. Sida/SAREC provides another US$200,000 for research capacity building activities related to the African AIDS Vaccine Programme.

A distinctive strategy that IVR has employed, in contrast to other WHO-based research programs, is its closer working relationships with the regional offices, actually providing some funds to regional focal points in AFRO, EMRO and SEARO to follow through on specific global and regional vaccine projects, such as the African AIDS Vaccine Project and the Meningitis Vaccine Project, which are heavily decentralized. In addition, IVR works with independent regional networks and is supporting a clinical trial on a meningitis polysaccharide vaccine in Butajira, Ethiopia, the site of a well-known demographic surveillance site supported by Sida/SAREC and the Ethiopian Science and Technology Commission for many years.

IVR has a Vaccine Advisory Committee that meets at least once a year before or after the Global Vaccine Research Forum that IVR hosts. No technical inputs have come from Sida/SAREC, but a Swedish scientist has been a member of the advisory committee. IVR is happy with the arrangement of accountability through annual progress reports and review of biennial work plans.

6. Alliance on Health Policy and Systems Research (AHPSR)

AHPSR is a global collaboration that seeks to "promote the generation, dissemination and use of knowledge for enhancing health systems performance". Originally facilitated by the Global Forum on Health Research in response to the huge HPSR gaps identified by the WHO Ad Hoc Committee on Health Research (and, before it, the Commission on Health Research for Development), it was formally established in 1999 as an initiative with a 15-member Board composed of policymakers, researchers, practitioners, and representatives of funding agencies and international organizations. This event

coincided with a new and receptive leadership in WHO (DG G. Brundtland) and allowed AHPSR to operate within the WHO Cluster on Evidence and Information for Policy, although it had its own secretariat. This first phase of the Alliance resulted in a mapping of health policy and systems researchers in LMICs, three rounds of research-to-policy grants to individual researchers, support to 10 academic institutions that were to strengthen regional HPSR activities, and many publications, including the first biennial review of HPSR.

After the Alliance Board explored various options to "graduate" from the GFHR "wing" as an independent initiative[31], the Alliance was formally incorporated into WHO (under EIP) in 2005, still with its own Board and a Scientific and Technical Advisory Committee. It also had oversight provided by the WHO Advisory Committee on Health Research and with much more functional working relationships with other WHO departments. These developments have been largely facilitated by the demand for HPSR articulated by the 2004 Mexico Ministerial Summit on Health Research and the 2005 WHA.

Sida/SAREC has supported the Alliance since its inception in Lejondal, Sweden, in 1997 at a consultation of key stakeholders. It has provided a total of 25 million SEK, including the 10 million channelled through WHO for 2006–07. Significantly, the Alliance has been able to expand its donor base recently, so that Sida/SAREC:s contribution is ~22% of a larger budget for the current biennium, compared to ~33% of a considerably smaller budget in the past years. Nonetheless, Sida/SAREC:s contribution is viewed by the Alliance as critical to its new 10-year vision. The Alliance has also expressed the view that Sida/SAREC, with its credibility and reputation for championing HPSR for development, can join forces with other like-minded donors to advocate for even greater support for HPSR strengthening in LMICs.

The Alliance's new 10-year vision is on target with Sida/SAREC:s own goals for health research cooperation; it deserves support and close monitoring. Given the nature of HPSR, the success of the Alliance will be measured on how firmly rooted it is in the hands of national researchers and policymakers and regional partnerships in LMICs. Over the medium term, the aspiration is for the Alliance to evolve into a special partnership program for HPSR within WHO, but more decentralized in its structure and function.

Lessons and Recommendations

- Sida/SAREC:s strong commitment to WHO as UN's specialized agency for public health is well-founded. With regard to health research, despite the absence of an organization-wide strategy for research, WHO is indeed an important channel for research support in health, given the successes and achievements from special research and training programs and focal areas of research activity within WHO, all geared toward the alleviation of diseases of poverty and inequity in development.
- In the face of a rapidly changing landscape for international research, WHO has to be proactive in the development of a strategy for research and knowledge utilization within WHO and as it relates to its normative function in international health research. This will only happen with increased and consistent support from a pool of like-minded donors, political will from top management (whoever the next DG will be), vigorous support and input from the ACHR, and tenacity among the WHO prime movers in the face of in-house resistance towards research.
- Bearing in mind that there are other stakeholders beyond those in governments, WHO should make extra efforts to coordinate and cooperate with other international health research organizations supporting international health research cooperation and the agenda of equity in health and development. In this regard, it may be premature for Sida/SAREC to put its eggs in just the WHO basket.

[31] GFHR promotes research initiatives and partnerships where there are identified global research gaps, but encourages such initiatives to eventually become independent and self-sustaining.

- Long-term commitment from Sida/SAREC has provided institutional stability for WHO research programs. All programs underscored the importance of "soft earmarking" for their respective programs, as well as the critical contribution of SAREC funds to "core support" within their programs. Sida/SAREC may wish to make 4-year pledges (instead of biennial commitments) to improve medium-term planning.
- There are other potential areas of research support within WHO that Sida/SAREC could consider under a broad definition of health research: social determinants of health, knowledge management for improved health, health and environment, mental health, adolescent health, and disasters/trauma as they relate to health.
- The roles and contributions of WHO regional offices and regional research networks to the advancement of health research were not explicit in many of the existing research programs. This should be articulated in the WHO research strategy paper, including possible mechanisms for channeling of Sida/SAREC support to regions with priority needs and viable work programs.

3.2.4 ICDDR,B : Centre for Health and Population Research[32]

Background

ICDDR,B: is a non-profit, international research, training, and service institution based in Dhaka, Bangladesh. It is the only international centre based in a developing country with a broad mandate for health research. Established originally as the Cholera Research Laboratory in 1960, it was transformed into an international centre by virtue of an ordinance passed by the Government of Bangladesh in 1978 and was renamed the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). Supported by both the Government of Bangladesh and various international aid and research agencies, the Centre has substantially expanded its research agenda from an original focus on cholera and diarrhoea to a strategic plan (to the year 2010) that covers the following research priorities: child health, reproductive health, nutrition, infectious diseases and vaccine sciences, health and family planning systems, population sciences, as well as three new programs on poverty and health, HIV/AIDS, and safe water.

While it has made significant contributions to knowledge generation and application in relation to global research priorities, the Centre's mission is equally directed to the health and development of Bangladesh, especially the poor people. Its hospitals in Dhaka and Matlab, in addition to being known worldwide for contributions to population, health and nutrition research, provide medical services to over 120,000 Bangladeshi patients each year.

Centre's Finances and Sida/SAREC Budget Support

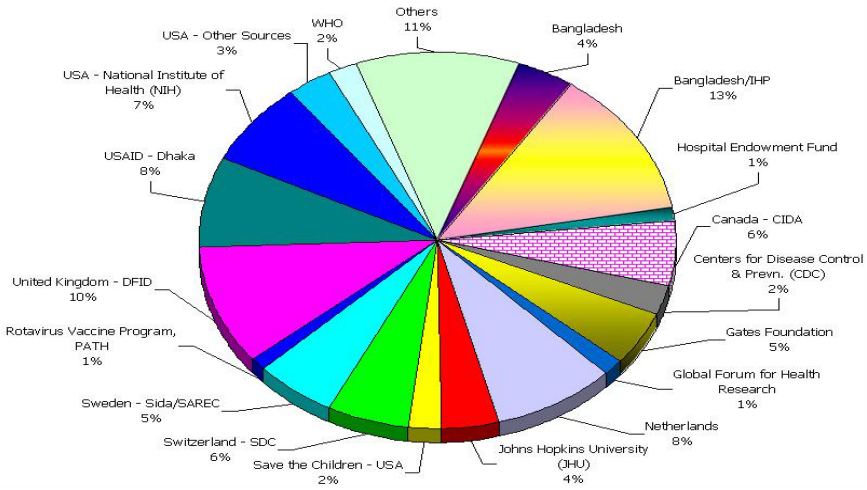
The Bangladesh Government Ordinance creating ICDDR,B was passed in December 1978. By February 1979, 35 donors had pledged to support the Centre, with SAREC being one of the signatories. Funds from SAREC started flowing by 1980, with awards provided in 3-year cycles. Although initially 80% of SAREC funds were projects and 20% as core support, this transitioned in the late 1980s into a 50–50 split between core support and project-earmarked support.

SAREC:s long-term support has contributed to the stability of the Centre's operations, and has been critical during periods of flux at the Centre (e.g., budget deficits from 1994 to 1998 and the recent withdrawal of a large USAID cooperative agreement due to a US government policy restricting the use of population funds, resulting in a funding gap of US$2.5M per year). More specifically, for 2006, Sida/SAREC provided an additional US$815,000 in addition to its annual contribution of ~US$1M. It should be noted that Sida/SAREC:s support to the Centre is considered under Sida/SAREC:s *regional* research support.

[32] Note: M.A. Lansang (member of the Evaluation Team) is a member of the Board of Trustees of the Centre (2005–2007).

The Centre's annual budget was a little over US$4M in 1979. This has steadily increased to US$23.6 (forecasted expenditure for 2006) with the growth of the Centre. It currently has a large number of core donors, which includes: Australia, Bangladesh, Canada, the Netherlands, Sweden, Switzerland, the UK, Saudi Arabia and Sri Lanka. Sida/SAREC support is roughly 4–5% of the annual budget of the Centre (Figure 1).

Figure 1. Sources of revenue for ICDDR,B for 2005 Actual US$ 18,010,000



Source: David Sack, Executive Director, ICDDR,B 2006

The External Relations and Institutional Development (ERID) Office assists the Centre's executive director in liaising with Sida/SAREC with regard to budget proposals and negotiations, as well as preparation and collation of reports to SAREC. The Centre management hopes to negotiate for the same level of funding (~US$1.8M) in January 2007, since management estimates that it will take 2–3 years for the Centre to "recover" from the recent withdrawal of a USAID cooperative agreement. In addition, the Centre is in the middle of implementing its institutional development plans for extending its main building from 3 to 8 storeys, renovating facilities, and planning for a second building.

In addition to SAREC, the Swedish Embassy in Bangladesh has provided funds for research on arsenic contamination of community water supplies, and scholarships from the Swedish Institute provide funds for Swedish scientists and PhD and postdoctoral students to work in Bangladesh for several months.

Centre Activities and Swedish Research Cooperation

Research and capacity building. The Centre is an important channel for Sida/SAREC support for international and regional health research. It is best known for its important role in the discovery and further development of oral rehydration solution (ORS), an intervention that is estimated to have saved the lives of ~40 million children with diarrhoea over the past 20 years. In May 2001, the Centre was the recipient of the first ever Gates Award for Global Health, for which it received a prize of US$1M, and for which it received an equivalent matching grant from the Government of Bangladesh.

R&D on the killed cholera vaccine, led by Jan Holmgren and Ann-Mari Svennerholm, was first tested among Swedish volunteers while Phase 2 and 3 trials were carried out by the Centre in Bangladesh field sites. Numerous publications resulted from this body of work; and this vaccine is now licensed and manufactured in Sweden, and is recommended for use by WHO. There is, however, still work to be done in making the vaccine more accessible and affordable to LMICs.

Other notable accomplishments of the Centre, to highlight a few, are: strategies for scaling up IMCI (Integrated Management of Childhood Infections) and zinc therapy for diarrhoea; demographic and

modelling studies; family planning strategies; and management of severe malnutrition. In the area of capacity building, the Centre has trained more than 22,000 health professionals in various local, regional, and international training programs and workshops, mostly funded from core funds of the Centre.

Research collaboration. SAREC has been described as "unique" in the Centre in that funds for earmarked projects (~50% of the total support) generally require some collaboration with a Swedish university, with a small amount of said funds administered by the Swedish university for exchange programs or visits. From the point of view of management and the Centre's scientists who have had long-standing collaboration with Swedish scientists and universities, Swedish research cooperation has been described as "best practice"—i.e., "real collaboration" in the form of equal partnerships, joint publications in peer-reviewed journals, and scientific impact. For the most part, the focus has been in areas of strength among Swedish scientists, e.g., basic and applied research on cholera vaccine, other causes of diarrhoea like ETEC and Shigella, *H. pylori* infection and tuberculosis. As such, the collaborations have mainly been with Centre staff from the Laboratory Sciences Division (especially the immunology laboratory). Other training programs offered by Swedish universities may not always fit into the staff development program and research thrusts of the Centre.

SAREC interactions and monitoring. Although some donor countries are represented in the Centre's 16-member Board of Trustees, Sida/SAREC has not yet had a seat on the Board (nor has DFID, UK). Currently there are board members from Switzerland and the Netherlands, although they do not officially represent their respective governments. Instead, a staff member of SAREC visits the Centre once or twice a year to discuss Centre plans and progress with the management and staff. SAREC does not require a separate reporting system for annual reports from the Centre, but does require audited financial reports and receives all copies of evaluations mandated by the Board.

Lessons and Recommendations

- Long-term commitment from Sida/SAREC has provided institutional stability. Funding in terms of core support has allowed the Centre the flexibility to implement its 10-year strategic plan, especially its research priorities, which address problems of the poor, both in Bangladesh and the world.
- Many donors and the Board of Trustees have asked for long-term planning and financial projections for the Centre. In this regard, a project cycle of 5 years instead of the current 3 years would be more advantageous. At present, grants from DFID (UK), IDRC, and USAID (until it ended the cooperative agreement) are approved as 5-year cycles.
- Sida/SAREC:s priorities on reproductive health and family planning match the Centre's own priorities and policies. In view of withdrawal of other donor support because of differing family planning policies, Sida/SAREC:s action to increase its financial support is viewed as critical to the Centre at this time and over the next 2–3 years (2006–09).
- Long-term collaboration of Centre scientists and Swedish scientists has been very productive, particularly in the basic sciences. Continued work on ETEC will be necessary to build on previous research findings, and new lines of research work on micronutrient supplementation would be important. In view of the increasing importance of health systems research in bridging the 'know – do' gap, and considering the relatively narrow focus of HSR in the Centre at the present time, health systems research and knowledge translation activities would be important areas of research cooperation to increase the impact of the Centre's research at national, regional, and international levels.

- Although the Centre is an international health research centre with global priorities, it is uniquely positioned to address health problems of the poor in Bangladesh as well as those in the Asian region. Thus Sida/SAREC should more vigorously encourage the Centre to strengthen and expand its research networking and collaboration in South Asia and East Asia. Few institutions funded under Sida/SAREC:s regional health research support have manifested the high-level impact and self-sustaining character of ICDDR,B.

4. Natural Resources and Environmental Sciences [33]

4.1 Background

Thematic research in natural resources and environmental science supported by Sida/SAREC is undertaken either within international programs such as the ones under the Consultative Group on International Agricultural Research(CGIAR), or within the framework of regional programs such as the African Forest Research Network, AFORNET. They work in Africa, except North Africa, and are administered by the African Academy of Sciences, or the Western Indian Ocean Marine Science Association, WIOMSA, working in Eastern Africa and Western Indian Ocean, with cooperation from a group at Södertörn University college in its research program on Marine Science for Management, MASMA. This assessment addresses the program from the perspective of their relationship with SAREC. The objectives are not to assess the performance of the programs per se, but rather to assess the role of SAREC in this relationship. This role of SAREC is not only the role of provider of economic assistance, but also of playing an active role in relation to the programs. Is the area represented under the program relevant to Sida/SAREC from the perspective of its policy framework? How can the support from SAREC be most effective? To what degree is SAREC able to play an efficient role? Is the research portfolio under the Natural Resources and Environment Science well balanced in relation to what can be expected from the Sida point of view? From a SAREC point of view?

The following, together with the presentation and assessment under the different programs, tries to respond to those questions for the Thematic Research in Natural Resources and Environmental Sciences.

4.1.1. Natural Resources and Environmental Sciences Research: changing context and challenges

In the process leading up to the UN Conference on Environment and Development, UNCED, in Rio de Janeiro, 1992, science and research for sustainable development was seen as a crucial means for implementation of Agenda 21. Governments agreed on the needs for strengthening the scientific basis for sustainable development, enhancing scientific understanding, improving possibilities for long-term scientific assessment, and building up scientific capacity and capability in all countries, but the needs of course were most pronounced in developing countries, in particular in those with a weak scientific infrastructure.

To reach the Millennium Development Goals there would also be a need for increased research in Natural Resources and Environmental Sciences, not just to reach the Goal 7 on 'ensuring environmental sustainability', but also to 'eradicate extreme poverty and hunger' (Goal 1), and to 'reduce child mortality' (Goal 4).

[33] Three consultants have contributed to this section on Natural Resources and Environment Sciences:
- Gunilla Björklund: part 4.1, part 4.2, and CGIAR (global/ ILRI/ ICRAF/ICIPE), IFS, AFORNET, Marine Science (CORDIO/KICAMP/WIOMSA/MASAR) in part 4.3.
- Fransisco Sagasti: CGIAR (CIP) and IFS in part 4.3.
- Amitav Rath: CGIAR (IRRI), VicRes and AFORNET in part 4.3.

At the World Summit on Sustainable Development (WSSD) in Johannesburg, 2002, science for sustainable development also played an important role, in particular in addressing the three pillars: social, economic, and environmental sustainability. The Swedish Environmental Advisory Council contributed a background paper on "Resilience and Sustainable Development" addressing human dependence on ecosystem services and support and possibilities to manage social-ecological resilience and sustainability. These are all issues of great importance for the inter-linkages between nature and human beings. Discussions showed the relevance this kind of research has to the poorest people, who depend on natural resources for their living. It was recognized that there is a need for further work, in particular in terms of applied research for improved hygiene, and access to clean water and sanitation; research in life sciences including genetics and biotechnology: development of agriculture based on studies of soils, land-use and land-cover changes, improved irrigation practices, and use of water; research in energy, including energy efficiency improvements, control of greenhouse gas emissions, and increased use of renewable resources. WSSD emphasized Water, Energy, Habitat, Agriculture, and Biodiversity as the crucial areas where action is needed to combat poverty. They are, of course, also important research areas for those countries combating poverty.

SAREC wants to strengthen capacity for research and to develop knowledge. Because poverty reduction is a priority in Swedish development policy, Sida/SAREC support prioritizes African countries, which is also demonstrated in the support to regional research programs in environmental science.

4.1.2 International programs supported

The *international research programs* in the area of Natural Resources and Environmental Science that Sida/SAREC supports are of two types (Table 4). The International Foundation for Sciences (IFS) allocates grants for young researchers in agriculture, forestry, water and sanitation, and some other biosciences. IFS has an extensive network of scientific advisors supporting the grantees, and is in the process of extending its operations by establishing a "hub-system," where Sub-Saharan Africa will be the first region.

Table 4. Organizations supported by Sida/SAREC for international and regional thematic research

Organization	Level of Support		Remarks
	Year/s	Amount (in MSEK)	
International			
Consultative Group on International Agricultural Research, CGIAR	1972–05	~1500	Sida/SAREC has supported the CGIAR since 1972. SAREC is mainly providing core funding to all 15 Centres. SAREC also supports Challenge-Programs where centres are cooperating. Since 1987 also some restricted funding is provided, including via FORMAS. Sweden holds a seat on the Science Council and the Genetic Resources Policy Committee and has been member of Finance Committee.
International Livestock Research Institute, ILRI	Funding provided from start. 1999–2005	51.3	ILRI is one of the CGIAR Centres. Swedish core funding important to ILRI. Under FORMAS-program African and Swedish scientists working together in a "sandwich-model". A cooperative arrangement with IFS, where IFS grantees may do their PhD at ILRI.
World Agroforestry Centre, ICRAF	Funding provided since start. 1999–05	25.6	ICRAF is one of the CGIAR Centres. Cooperation with Swedish scientists under the FORMAS-program. Sida has supported through the RELMA-program, where funding will stop at the end of 2006.

Organization	Level of Support		Remarks
	Year/s	Amount (in MSEK)	
International Centre of Insect Physiology and Ecology, ICIPE	Funding provided since 1972 2000–05 2006–08	 47 35	Sida or SAREC have supported ICIPE since the start. 95% of core funding from Sweden and Switzerland. Sweden chaired the Sponsor Group 1997 –04. ICIPE now trying to broaden scientific network and the group of sponsors.
International Foundation for Science, IFS	Funding provided since start 1973. 2000–05	 104.6	SAREC now providing around 40% of its core funding. A broad group of sponsors. Young scientists grant program, 70% to low-income countries. For agriculture, forestry, water etc. supported scientific advisors worldwide. The large network may be used by SAREC. Discussion on forestry grants with AFORNET. Will broaden its working area, in particular by establishing regional hubs, first in Sub-Saharan Africa.
Regional			
African Forest Research Network, AFORNET	1991–01 2002–05 2005–07	39.45 26 20	High quality grants program. Operating in West, East, and Southern Africa. Thematic Research Network Program with scientists from two or more countries. Decision on cooperation with IFS pending an evaluation of the AAS.
Marine Science in East Africa	Initiated 1989		Swedish coordinated initiative, with collaboration between influential people on the "right chairs" coordinated by SAREC. Has developed with emerging needs.
Coral Reef Degradation in the Indian Ocean, CORDIO	Funding provided since start. 2000–06	 21.75	Initiated 1998. Sweden supporting from start, then together with the World Bank. Has been coordinated from Sweden. Funding ending 2006. Part of the Swedish Marine Initiative (starting around 1980).
Western Indian Ocean Marine Science Association, WIOMSA/ Marine Science for Management, MASMA	2000–06	55.5	WIOMSA started under Institute of Marine Science, Dar es Salaam, supported as part of the Swedish Marine Initiative. Partners have been Universities in Göteborg, Stockholm, Maputo and SWEDMAR, Göteborg. MASMA, "research council" in collaboration with Södertörn University College.
Kinondoni Integrated Coastal Area Management Program, KICAMP	2001–03 2004–06	5.7 12.0	KICAMP research and implementation regional marine project. May receive bilateral support after 2006.
East African Regional Programme and Research Network for Biotechnology, Biosafety and Biotechnology Policy Development, BIO-EARN	1999–01 2002–05 2006–09	39.0 56.0 77.0	Initiated by SEI and the group working with the Biodiversity Convention in cooperation with East African partners. Working in biotechnology, biosafety and biotechnology policy development in Ethiopia, Kenya, Tanzania, and Uganda. From 2006 the coordination at IUCEA, Uganda, emphasizing policy work.

The other type of international programs supported by SAREC in this is area represented by the CGIAR. Both are major programs, the CGIAR system consisting of 15 centers, working internationally as well as regionally in areas where Sweden politically has expressed great concern, and where Sweden has played an active role. The CGIAR system is the major noncommercial international research organization in the field of agricultural sciences. Sweden through Sida and SAREC has supported both organizations since 1973. ICEPE is another important centre supported by SAREC.

Sida/SAREC has also supported *regional research networks* in forestry (AFORNET), which is providing grants to young scientists and thematic research groups from more than two countries, in biosafety and biotechnology including policy research to BIO-EARN, and in marine science in East Africa and Western Indian Ocean, originally through the Swedish Marine Initiative but now through WIOMSA/MASMA, CORDIO, and the KICAMP, of which only the WIOMSA/MASMA program will have continued SAREC support from 2007.

4.1.3 Assessment of Sida/SAREC support

Relevance

Sida/SAREC:s support for international and regional thematic research is relevant to global issues of inequity in food security, environmental health, ecosystem security and development and strategies for poverty reduction. Sida's position papers and other analyzes on key issues demonstrate that Sida/SAREC is using the time available as efficiently as possible in prioritizing system-level policy work. The CGIAR is still considered being a high priority for SAREC cooperation, and SAREC is now seeking ways of broadening the cooperation between African and Swedish scientists. A much appreciated way of doing that is the FORMAS program where Swedish and African scientists are involved in a "sandwich-type" program for cooperation.

The Swedish East African Marine Initiative is a focus area where the Swedish support gradually has shifted from supporting pure natural science to a much more integrated scientific approach, including social and livelihood aspects.

Comparing the areas of support by SAREC with the areas of support by Sida, there are some discrepancies, in particular concerning the lack of programs related to water scarcity and water management, and the lack of programs and projects linked to climate change. particularly the linkages to adaptation to climate change. The latter is a key area recognized in Swedish development policy.

Effectiveness

International research programs For SAREC to ascertain that the Swedish support will improve a project and thus will effectively contribute to a positive outcome is often difficult, in particular when it concerns the international programs such as the unrestricted core funding to the CGIAR-system or to ICIPE. The former SAREC officer-in-charge, Associate Professor Thornström, who held the position for 20 years, established a personal network through which he was more able to do effective follow-up. The main problem, however, is that because the funding is unrestricted follow-up is just not possible. Some countries have earmarked some of their contribution to core funding and are therefore better able to effectively monitor the use of the funds. A too-restricted contribution to core funds may, on the other hand, hamper the program's basic structure, contributing to a reduced level of effectiveness of the program. There are different perspectives on how to deal with this issue, in particular concerning international programs such as CGIAR and ICIPE. One way to do follow-up that has not been used often is by issuing evaluations. The last, more extensive evaluation of SAREC support to the CGIAR system was done in 1994.

It is, of course, much easier to determine effective use of funding in an organization such as IFS, with its headquarters in Stockholm. In this case close links can be maintained because the director of IFS is the former head of thematic programs at SAREC.

Regional thematic networks The numbers of follow-ups on the contributions to the regional thematic networks also vary. Evaluations have been issued quite frequently for the East African Marine Science Programme. The responsible organizations running the programs are reporting back, the officers in charge visit the program offices, and sometimes the field sites. For the programs holding grants programs, another possibility to assess the effective use of SAREC funding may be by studying scientific reports, PhD theses, or workshop results.

Efficiency

Is the channelling of resources the most efficient way of fulfilling the objectives of strengthening research capacity and developing knowledge? In addressing environmental research, several channels have been used, and it seems that the channels as such are not the main difficulty. The problem seems to be understaffing and the staffing structure.

Staff functions The limited staff does not mean that SAREC as a whole is understaffed. Together with fairly rapid reassignments, the staffing sometimes seems to be somewhat "ad hoc". There are limited possibilities for officers to stay in charge of a program for as long as 20 years, so any reassignments may make it difficult to keep the same officer in charge of like-minded programs. A restructuring of the staff into clusters on specific issues could be done. It might be easier to utilise obvious linkages between the different programs.

Research portfolio Although the issue of research portfolio it is only briefly covered above, it would be important to ensure that the priorities clearly expressed for Sida be reflected in terms of research areas of the SAREC portfolio. In doing that, there is also a need for much clearer operational linkages between Sida/SAREC including cooperating on projects.

4.2 Cases: International Initiatives

4.2.1 International Foundation for Science, IFS

Background

IFS was founded in 1972 as an independent, nongovernmental organization, supported by a number of multilateral and bilateral donors and national research councils, including from developing countries. IFS was founded by scientists for scientists to address the needs of young scientists in developing countries, and was conceived as a response to the "brain drain" from developing countries by strengthening the capacity in developing countries for high-level research in sustainable use of biological resources. This involves the study of physical, chemical, and biological processes, as well as relevant social and economic aspects, important in the conservation, production, and renewable utilization of the natural resources base. IFS is currently providing grants and supporting services for young scientists in areas such as agriculture, animal health and production, forestry, aquatic resources, food science, natural products, and water resources.

IFS identifies, through a careful selection process, promising young scientists from developing countries with potential to become future science leaders. They are receiving support early in their careers to pursue high-quality research, which helps them to become established and recognized nationally and internationally. Additional supporting services are provided to researchers in scientifically weaker institutions and countries.

The Granting Program The support provided by IFS is primarily in the form of an IFS Research Grant, which amounts to US$12,000 and may be renewed twice. It is intended for the purchase of the basic tools needed to conduct a research project: equipment, expendable supplies, and literature. Since 1974 there have been 3,500 IFS grantees in Africa, Asia and the Pacific, and Latin America and the Caribbean. Of these 22% are women.

During the agreement period 2003–05, Sida requested IFS to concentrate activities on low-income countries with vulnerable scientific infrastructure, and the agreed target by IFS of 70% of the grants going to such low-income countries, in particular in Africa, was reached in 2005. The proportion of female researchers receiving grants should be emphasized. The IFS is also arranging workshops mainly co-organized with its affiliated organizations.

IFS is just entering the 2006–10 Five Year Programme with its core components:

- A competitive research grant scheme, with the strong emphasis on low-income countries and special consideration for female scientists.
- A capacity enhancement support package that includes stronger emphasis on mentorship on an individual basis, and travel grants to visit mentors and centres of excellence, the mobilization of operational thematic networks, research groups, access to different types of training workshops, and thematic workshops.

Noncore activities such as networks including European and North American scientists and specific support projects for women scientists are other important areas that will serve as support to the young grantees.

Organization

The *Board of Trustees,* consisting of 12 high-level scientists and representatives of global research organizations, including representation from the donor group, is the governing body. The program is administered from the IFS Secretariat in Stockholm. IFS has a large group of Scientific Advisors worldwide, including former grantees, who voluntarily help the young scientists and function as resource persons. Scientific Advisory Committees for the different research areas evaluate applications. An IFS presence in developing countries is secured through Affiliated Organizations with many former grantees. IFS acts in collaboration with these and other national, regional, and international institutions, using the complementary strengths of such partnerships.

The extended program that is initiated by the Five Year Programme has a stronger emphasis on cooperation and presence in key regions. Such a presence aims at providing more direct support to the young scientists. To be able to do so, IFS is seeking to establish hubs (a small office) located with affiliated or other partner organizations. Such a hub would serve as a professional "help desk" for grantees in the region, and also take over responsibilities from the secretariat.

Results

During the 33 years of the Program, some 4,000 grantees in 100 countries have received almost 6,000 research grants. According to evaluations, the IFS support has been essential to the young scientists in establishing a science career. Many of the former IFS grantees have assumed leadership positions in universities, research institutions, government agencies and civil society. The scientific productivity has been good, with many IFS grantees publishing research results in national as well as international peer-reviewed journals. The amount of "brain drain" has been low among the grantees.

Donors IFS receives funding from governmental and non-governmental sources, as well as national and international organizations. The IFS annual budget is approximately US$5 million.

SAREC inputs to IFS have always been important, and SAREC is currently contributing 40% of its core funding. The contributions in million SEK for the period 1999 –05 are given in Table 5:

Table 5. SAREC support of IFS

Funding	1999	2000	2001	2002	2003	2004	2005
Total core	27.2	27.4	27.3	25.5	27.5	28.3	n.a.
Total restricted	9.8	8.4	12.0	15.9	11.8	8.7	n.a.
SAREC	n.a.	15.0	15.0	15.6	17.0 + 3.0	18.0	18.0 + 3.0

The SAREC contribution includes core funding and to a varying degree also project funding.
n.a. = not available

IFS has launched a Five Year Programme for 2006–10. The program is ambitious, and IFS in January 2006 requested core funding from SAREC of 74 MSEK for the initial period 2006–08, which would correspond to 45% of the Five Year Programme budget, and correspond to an increase of 30% of the SAREC core contribution for 2003–05. IFS also received indications from other donors of increased contributions. The IFS program is currently funded by twenty donors worldwide, with 75% of the contributions provided as core funds. The group of core-funding donors includes Danida, DFG, Germany, Ministry of Foreign Affairs, France, NORAD, Swiss National Science Foundation, DFID, UK, and VLIR Belgium.

Implications for SAREC, lessons learned and recommendations

The extended IFS program as indicated in the Five Year Programme 2006–10, can be seen as a consequence of a gradually increasing presence in the developing countries. This applies particularly in low-income countries with vulnerable scientific infrastructure, as requested by Sida/SAREC, which are priority countries for Swedish development assistance. This is a road that many developing agencies are taking, but which is not that common among development research agencies, except IDRC. IFS's relative advantage is its strong group of affiliated organizations, where many former grantees are present. It has been built up worldwide since 1972. The system of hubs at some affiliating organizations is a way of formalizing the already existing network.

Among the special features of IFS is the fact that it strives to support researchers who have shown academic excellence in the poorest countries, where about 70% of its grants are concentrated. In assessing academic excellence, however, it also takes into consideration the research environment and the scientific and technological capacity context of the countries of the applicants. In this way it is able to support young scientists who show promise, and are likely to contribute to the creation of a viable research community in their own countries. IFS also adjusts the criteria to support researchers whose applications would not be approved if high-level and rigorous international standards of excellence were to be rigidly applied. IFS and its network of advisors follow a well-designed path leading to the progressive upgrading of the scientific research community in poor countries. Although this approach appears to be followed in other Sida/SAREC programs, it may be appropriate to articulate explicitly what may be termed an "excellence in context and progressive upgrading of research communities" approach to research capacity building.

Another interesting characteristic of IFS, derived from its more than 30 years of operation, is the extensive network of research advisors, particularly in the developing regions. More than 1,000 research advisors have been associated with IFS over time, and about 400 of them remain active. This represents a large pool of talent that can, and should, be tapped in a more systematic way. Considering the staff limitations faced by Sida /SAREC, it may be possible to secure the services of IFS and its network of scientific advisors for a variety of tasks that are now beyond the reach of the heavily burdened staff of Sida/SAREC. For example, IFS research advisors in a particular region, subregion, or country could assist in monitoring the performance of national and regional/thematic programs, help in the management of competitive grants provided by national and regional institutions with Sida/SAREC support,

and actively participate in the evaluation of programs and activities. They could also organize events and act as advisors to the Swedish embassies or Sida delegations. A way to organize this would be for Sida/SAREC to subcontract IFS and its research advisors to provide monitoring, advice, evaluation, and other services to Sida/SAREC in their regions, a task the research advisors could perform on a part-time basis. This would extend the range of activities that IFS performs at present and help in consolidating its financial position.

SAREC has currently a weak regional representation at the embassies in the countries where SAREC is providing support, and is considered as a less "bottom-up" approach organization because the work is organized and run from the office at Sida in Stockholm. If this IFS system is proven successful SAREC could link with the IFS hub and Affiliating Organization system. This would be valuable when establishing closer and more informed contacts with the science community of the IFS research areas in the region. One example is the attempt to link the IFS grant system in the forestry area with the one of AFORNET. This linkage has not yet been concluded successfully (see AFORNET).

4.2.2. Consultative Group on International Agricultural Research, CGIAR

Background

The CGIAR was created in 1971. Swedish support to some of the international agricultural research centres (IARCs) within the CGIAR system started in 1973, when Sweden became a member of the group. Since 1975 when SAREC was created, the main funding, as core funding, to the IARCs through the CGIAR has come from SAREC. The funding has been comparatively stable and increasing, except during 2001–06 when it has been leveled off, mainly due to the ongoing CGIAR reform process. The research program of the CGIAR, however, was underfinanced in the early 1990s. As a result, CGIAR centres had to reduce programs, staff, and operations. For 16 African countries that resulted in spending per agricultural scientist in 1991 averaging less than half that of 1961!

The CGIAR is a strategic alliance of 63 member states, international and national organizations, and private foundations from industrial and developing partner countries. The CGIAR supports what is currently a loosely connected network of 15 IARCs around the world. The group is cosponsored by FAO, IFAD, UNDP, and the World Bank.

The mission for the CGIAR system, as expressed in the Charter from 2004 is to *"achieve sustainable food security and reduce poverty in developing countries through scientific research and research-related activities in the fields of agriculture, livestock, forestry, fisheries, policy and natural resources management"*. Sweden has taken an active part in policy issues, most notably issues related to property rights concerning plant genetic resources, and in impact assessments.

Organization

1. Governing principles: The CGIAR system since its inception has been based on five organizational principles: donor sovereignty, center autonomy, informal mode of operation, nonpolitical system guidance, and protecting system priorities. This means that each donor decides which centers to support as well as the level of support. The relation with each of the selected centers is thus bilateral. Each center is a separate legal entity with its own governing board, although strategies, plans, and budgets for the centres are reviewed and approved by what originally was the Technical Advisory Committee (TAC), the Finance Committee, and the Consultative Group. These now have a different mandate as the Scientific Council and the new Consultative Group and its Executive Council.

The informal mode of operation promotes 'old-boy networks' as expressed in the SAREC Documentation (Evaluations 1994:1) as well as informal relationships between centre-level bodies and centres. SAREC was, through DG Thornström, the SAREC person in charge of CGIAR matters for 20 years. He was well placed in this network, being a member of TAC and the Finance Committee.

The issue of nonpolitical guidance has been important when dealing with issues such as effective genetic resource conservation and management, and the growing importance of intellectual property rights in agricultural research. It was also important initially when the CGIAR aim was to increase food production by introducing new technologies for increased yields of rice, wheat, and maize in the developing world. The issues also emphasized the needs to protect the CGIAR as a system.

2. Functions and mandates: The original functional and structural system built on the Consultative Group, consisting of all members, established in 1993 a Finance committee to deal with funding problems, and an Oversight Committee. These were served by the World Bank. The Consultative Group, at the inception of the CGIAR consisting of 16 members (10 member countries, including Sweden, two International Organizations, and four Others) and cosponsored by FAO, IBRD, and UNDP, was "assisted as necessary" by TAC. TAC was composed of distinguished international experts from industrial and developing countries, nominated by the cosponsors and appointed by the Consultative Group (CGIAR: Resolution, Objectives, Composition and Organizational Structure. Washington, D.C. May 1971). The secretariat for TAC was supported by FAO.

Initially the centres' budgets were based on their annual plans, which were reviewed by TAC, in terms of strategies as well as their implementation, and approved by the Consultative Group. From 1987, the centres have prepared five-year medium-term plans, based on CGIAR strategy and priorities, originally as proposed by TAC.

The growing system, now with 63 members and 15 centres and with an expanding agenda, resulted in 2001 in a restructured CGIAR so that it would: (1)maintain science and research at the highest levels, (2) ensure that the CGIAR is characterized by lightness, agility, responsiveness, and cost-efficiency, (3) strengthen the role of CGIAR as a producer of global public goods, (4) create a new framework for partnership, (5) provide the centres with stable and secure funding, and (6) devise the most effective means of linking CGIAR-supported research with the developing programs of countries in the South.

To meet expectations, the new structure adopted in 2001 consists of the Consulting Group and a 21 member *Executing Council, ExCo,* that will act on behalf of the Consulting Group between its yearly meetings. The ExCo consists of shareholders and stakeholders. TAC was replaced by a smaller *Science Committee* consisting of a group of 10 eminent scientists in their own capacity. They work through Standing Panels covering Strategies and Priorities, Monitoring and Evaluation, Mobilizing Science, and Impact Assessments. Swedish Professor Lisa Sennerby-Forse, rector at Ultuna University for Agriculture, is currently a member of the Science Committee.

The Science Council as well as its Standing Panels acts as Advisory Committees to the CGIAR. A third Advisory Committee is the Genetic Resources Policy Committee (GRPC), initiated by Sweden in 1994 to advise on a subject crucial to the CGIAR system in fulfilling its mandate. Associate Professor Carl Gustaf Thornström of Sweden is a member of that Committee.

The CGIAR structure is, however, still an alliance of 15 centres, which are governed by their respective boards and financed through core funding and restricted funding directly to the centres. In order to improve collaboration and interaction between the CGIAR centres, the Committee of the Center Board Chairs and the Center Directors Committee in 2004 formed an Alliance of the CGIAR Centers with an Alliance Board and an Alliance Executive, which were endorsed at the Annual General Meeting 2005.

Focus areas and system priorities

The overall strategy and priority setting for the CGIAR system is agreed by the Annual General meeting by the Consultative Group on recommendation of the Science Council. It should serve as priority settings for the whole system, both for the individual centres, for national agricultural research

systems (NARS) linked to the system, but also for centres working in a network, maybe in cooperation with other partners (for instance on a Challenge Program).

The five areas of focus for the CGIAR system are:

- Sustainable production (of crops, livestock, fisheries, forests, and natural resources.
- Enhanced NARS through joint research, policy support, training and knowledge-sharing.
- Germplasm improvement for priority crops, livestock, trees, and fish.
- Germplasm collection (collecting, characterizing, and conserving genetic resources – the CGIAR centres hold in public trust the world's largest seed collection available to all).
- Fostering research on policies that have a major impact on agriculture, food, health, spread of new technologies, and the management and conservation of natural resources.

As the CGIAR is based on a global context, in which the world poverty concerns and the world food concerns are clearly expressed as Millennium Development Goals (MDGs), the Group needed to set clear priorities, five System Priority Areas based on agreed criteria, as identified by the Science Council:

- Sustaining biodiversity for current and future generations.
- Producing more and better food at lower cost through genetic improvements.
- Reducing rural poverty through agricultural diversification and emerging opportunities for high-value commodities and products.
- Promoting poverty alleviation and sustainable management of water, land and forest resources.
- Improving policies and facilitating institutional innovation to support sustainable reduction of poverty and hunger.

These priorities, including sub-priorities, should influence the work at the centres for the years 2005–15. They would, of course, also impose certain responsibilities on the members of the CGIAR through their desk officers. They would ensure that policy implications resulting from these priorities are in conformity with what the country has agreed, including under the UN Biodiversity Convention.

Outputs and Results

The "Independent Meta-Evaluation of the Consultative Group on International Agricultural Research" completed by the World Bank's Operations Evaluation Department in 2003 addresses strategic questions regarding organization, financing, and management of the CGIAR and the nature, scope, and quality of the CGIAR scientific work. Although this evaluation mainly addresses the issues from a World Bank perspective, the results demonstrated as well as the problems indicated have also partly been guiding SAREC:s involvement in the CGIAR as such, as well as being of importance to the development of the CGIAR Priority areas for 2005–15. Because both core funding and restricted funding go to the different centres directly, however, the core funding through the CGIAR, and the research work is conducted at the centres, the quantity and quality of the research results should also be evaluated as results by the different centres. It would also be useful to evaluate the Swedish impact through SAREC in this process.

The Independent Meta-Evaluation focused on six issues of central importance to Relevance, Effectiveness, Appropriateness and Efficiency for research deliveries through the CGIAR system:

1. That the CGIAR germplasm research has resulted in important improvement and a potential to increase agricultural productivity, generate positive spillover effects, and exploit economies at scale.

2. That the CGIAR collection of genetic resources is important *inter alia* to complementary research undertaken by NARS throughout the developing world and in agricultural reconstruction in post-conflict nations.

3. That policy research in the CGIAR has demonstrated that the lack of conducive agricultural policy environment globally and in developing countries, as well as a shortage of social science research and research capacity, are identified as important constraints to the adoption of new technologies and agricultural growth. Often the CGIAR needs to balance the scale of impacts on the ground to the international visibility to maintain donor support.

4. That National Resources Management Research has become increasingly prominent lasting recent years, where the difficulties are in the balance between a broad framework that could be system-wide and the need for focusing.

5. That the partnership between the CGIAR and its centres and the NARS is a great strength, but as the CGIAR dual focus on research in integrated germplasm and on natural resources management is developing, the demands on this partnership are increasing.

6. That as Africa, after many years of focused development programs, still is facing increasing poverty rates and remains the only region of the world where per capita food production has stagnated over the past 40 years, more emphasis needs to be placed on research that promotes increased per capita food production as well as income generation. This issue was raised already in the early 1990s, including by Sweden, as the CGIAR then underwent a period when it was underfinanced and had to cut down on programs, operations, and staff. This, of course, had an adverse impact on the African countries involved in the programs. In 16 African countries spending per agriculture scientist in 1991 averaged less than half that of 1961! Sweden, through the Ministry for Foreign Affairs, provided for additional funding during this crucial period.

Sida/SAREC inputs

The inputs by Sida/SAREC (the latter mainly as unrestricted, Sida as restricted) to the CGIAR centres is given in Table 6.

Table 6. SAREC + Sida inputs to the CGIAR institutes, compared to the total funding to the approved research agenda (in millions USD).

	1972–99	2000	2001	2002	2003	2004	2005
Sweden	132.2	9.4	9.2	10.7	13.6	14.6	~ 9[34]
Total	4,974.6	335.5	330.7	348.1	379.0	426.5	n. a.

The total amount of unrestricted (core) funding for 2003 was US$169 million, which was 45% of the total; in 2004 it was US$195 million or 45%. Sweden is among the top nine contributors.

The Swedish core funding through SAREC in 2001 was 60 million SEK, while the restricted funding from Sida/NATUR was 19.1 million SEK. For 2002, the figures were for core funding 65 million SEK and restricted 14. The Swedish level of core funding is the same for 2006 as for 2005, and suggested to stay the same for the first half of 2007, spread over the 15 centres. The SAREC contribution in million SEK to the different institutes through the CGIAR for the years 1999 –05 is shown in Table 7:

[34] Only SAREC:s contribution

Table 7. SAREC:s contribution to the CGIAR centres (in million SEK)

Centre	1999	2000	2001	2002	2003	2004	2005
CIP	7	6	6.5	6.9	6.9	6.9	6.6
IRRI	5	3.5	3.5	4	4	3.9	3.7
CIMMYT	3	2	2.5	2.8	2.8	2.7	2.5
IITA	4	3.5	3.5	3.7	3.7	3.6	3.4
CIAT	3	3	3.4	3.7	3.7	3.6	3.4
ICRISAT	5	4	4.2	4.4	4.4	4.1	3.8
ICARDA	4.6	4.1	4.2	4.5	4.5	4.4	4.2
ILRI	7	6	7.5	7.8	7.8	7.7	7.5
IPGRI	4.3	4	4.2	4.5	4.5	4.5	4.2
ISNAR	2.5	2.5	2.5	2.8	2.8	2.8	(1.5)[35]
WARDA	3.7	3	3.2	3.6	3.6	3.6	3.3
ICRAF	4.4	3.4	3.4	3.7	3.7	3.6	3.4
CIFOR	2	2	3	3.2	3.2	3.1	2.9
IFPRI	4	3.5	3.5	3.7	3.7	3.6	3.4
ICLARM	3	2	2.2	2.7	2.7	2.6	2.4
IWMI	3	2.5	2.7	3	3	2.9	2.7
Challenge programs							
Total	**65.5**	**55.0**	**60.0**	**65.0**	**67.4**	**65.1**	**60.0**[36]

Five million SEK was further earmarked for 2005 for Swedish researchers' cooperation with CGIAR centres through the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS). It was to continue at the same level for 2006 and the first half of 2007.
The Challenge Programs to which Sida/SAREC contributes concerns 'Coating micronutrient deficiencies that affect more then three billion people (Harvest Plus)', 'Addressing water scarcity by improving water use efficiency in agriculture (Water and Food)', and 'Unlocking crop genetic diversity through the application of molecular tools to create a new generation of varieties of major food crops that meet farmers' needs (Generation)'.

Sida/NATUR (Division for Natural Resources) is contributing restricted funding to the following centres: ICRAF 8.5 million SEK in 2004 and 6.5 in 2005 for Lake Victoria research and regional research capacity enhancing in Africa and Southeast Asia; CIFOR 3 million SEK in 2004 and 2 million in 2005 for Africa's tropical dry forests – time to re-engage. In 2005 Sida/NATUR also contributed 1.1 million SEK as restricted funding to IWMI. The ICRAF-based, Sida/NATUR supported Regional Land Management Unit, RELMA received in 2004, 20 million SEK, but the Swedish funding was gradually phased out and will end December 2006. Including this restricted funding Sweden is currently the most important contributor both to ICRAF and to ILRI.

As the CGIAR system is undergoing a reform process that involves an evolutionary reshaping toward a more network structure, amount and distribution of further funding will depend on the development of that process.

[35] Paid to IFPRI.
[36] Of this 5 million SEK goes for close cooperation between Swedish scientists via FORMAS and CGIAR institutes.

SAREC support: comments and thoughts

The latest more comprehensive evaluation of Swedish Support to CGIAR was the quinquennial review for 1987–92, undertaken for SAREC by B. Lundgren, P. Brink, L.-E. Birgegård, G. Ericsson and M. Khalili, and published as SAREC Documentation, Evaluations 1994:1. This report discusses *inter alia* the contributions to the system, the possible Swedish policy and governance input, and the Swedish scientific interactions with the CGIAR.

Sida is currently reviewing its support through the CGIAR in the context that the donors have to find ways to harmonize their support for the centres with the requirements under the agreed System Priorities. A donor meeting will be hold at the next CGIAR annual meeting in December 2006.

Until 1987, all contributions through the CGIAR to the centres were unrestricted, core funding. Beginning in 1988, the main part of funding was still as core funding, but some Swedish contributions were also as restricted, program funding. As the 1994 report indicates, there is, of course, no linear correlation between influence and level of contribution within the CGIAR. The CGIAR system also can be seen as dual level, where strategies and policies are to be agreed at a central level that is also to have an oversight of the financial status of the system. It would also have the possibility of influencing networking and cooperation between different centres and NARS, and also with other research organizations, as appropriate.

The second level is the individual centre level, where the board is responsible for the budget, policy, and strategic implications as demonstrated in the centre's programs and projects, and its cooperation with other research centres inside and outside the CGIAR (for example in the Challenge Programs). A centre would, of course, need a certain amount of unrestricted funding to cover basic costs such as the physical plant, rooms, equipments, and core personnel salaries. Also important is ensuring sufficient funding for projects and programs. The funding system is, therefore dual: 'international thematic research program'-funding as core funding to the different centres through the CGIAR, but the restricted funding is as 'bilateral' project funding.

SAREC:s possibilities to have an influence on how the Swedish resources are used would thus be by active involvement at two levels. Possibilities to exercise such influence depend, however, very much on what role Sweden is able to play. Currently, Sweden holds a seat on the Science Council and in the Genetic Resources Policy Committee, two influential bodies, central to the system. This means that Sweden is able to influence the heart of the CGIAR policy, including the new System Priorities (see above). On financial issues, Sweden will need to exercise its influence through EU colleagues in the ExCO, and through the European Initiative for Agricultural Research for Development (EIARD). This means that there will be a need at the central level for cooperation with other donors and stakeholders. Close cooperation and networking are thus key to ensuring that all priorities agreed under the new System Priorities will be covered. In this process the Swedish desk officer in charge for CGIAR matters would, from a Swedish perspective, need to be 'the spider in the web', as he/she would need to have a wide knowledge of processes where Swedish statements will effect actions under the CGIAR, and vice versa.

The possibility for Swedish influence at the centre level may be reduced if Sweden is not on the Board of the centre. A new initiative that started in 2005 is the cooperative FORMAS/SAREC program, where SAREC support is provided for Swedish research cooperation with CGIAR centres (see ILRI below). SAREC also has a reference group, started in 2005, consisting of Swedish scientists with linkages to the different centres, who will provide SAREC with additional basic information.

These two initiatives would give a higher degree of insight into the agenda of individual centres, but to provide for any direct influence it is important to ensure personal contact. The CGIAR is a complex system, and it is important to ensure an institutional memory to be able to exercise any useful influence. Sweden is well informed, and has therefore been seen as an influential donor.

4.2.3 The CGIAR Centres

Different centres need to be looked at in detail to determine:

- Whether programs and projects under the CGIAR demonstrate relevance, that is whether they are congruent with national policies, with the MDGs, with the objectives, or if the outputs are congruent with the objectives, or can be approved.
- Whether the program demonstrates effectiveness, that is how the follow-up process functions or the possible outcomes of the program/project.
- Whether the channel for the thematic research demonstrates appropriateness, that is if the advantages and benefits are more pronounced than the disadvantages by this channel and what capacity it has.
- Whether the portfolio demonstrates efficiency, that is whether the composition of contributions to the system, the balance between themes, different types of support and different channels for support is efficient.

4.2.4 International Livestock Research Institute, ILRI

Funding

The ILRI funding trend demonstrated a shift from 1995 when 80% came from unrestricted core funding, and less than 20%from restricted project funding, to 1999 when close to 50% came from each of these sources. From 2000 more donor support has come from project funding than from core funding. Out of the ~12 million US$ in core funding in 2000, Sweden contributed close to US$1 million, of the 12.5 million in 2003, Sweden through SAREC contributed US$1.1 million, a level that Sweden maintains. Sweden is currently the largest donor to ILRI, and should thus exercise its policy influence to a larger degree than at present.

On funding, ILRI saw the Swedish contribution as being particularly important in the area of nonrestricted funding, particularly as the proportion of nonrestricted funding is decreasing. To uphold the effectiveness of the program, a certain amount of core funding is necessary. The ILRI management team also emphasized that by contributing to core funding and not trying to 'micro-manage', SAREC demonstrated a true understanding for basic research work. At the same time, however, they were now less sure about the SAREC position that cannot be expressed by scientists but should be done at the SAREC desk officer level.

Possibilities to ensure relevant and appropriate programs and projects

The nonrestricted funding gives, however, fairly small possibilities to influence the program and the research possibilities. A way where Swedish funding would contribute to strategic research along the lines that are agreed under the System Priorities is by effectively utilizing the cooperation under the new FORMAS program. Under this program, Swedish scientists and African scientists will work together in Sweden and at the African institution, in Nairobi or in Addis Ababa, in a 'sandwich-model' that will provide for a broadened perspective. Also, some of the training courses at ILRI are constructed as 'sandwich-type' courses, where Sweden and Swedish University for Agriculture (SLU) provides at least one of the 'layers'. A Swedish trustee on the ILRI Board of Trustees, Professor Jan Philipsson at SLU, is providing the link between the policy and strategy and the actual implementation.

Furthermore, there exists a cooperative agreement with the Swedish International Foundation for Science on cooperative arrangements, where developing country students may get grants to do their PhD research work at ILRI.

It is, however, also necessary to ensure linkages between the strategic work at the CGIAR level. This would ensure that the projects and programs are congruent with local and global development

goals, including the MDGs, and that relevant priorities are addressed through appropriate channels. The implementation at the ILRI level would ensure not only adequate project implementation governed by agreed Structural Priorities, but also follow-up and evaluation of the projects and their impacts. This would prove the effectiveness of the projects and the efficiency with which they are addressed. This is the weak link, however. To guarantee an effective link, a stronger Swedish representation is required at the Swedish desk officer level.

4.2.5 World Agroforestry Centre, ICRAF

Funding

Sweden is currently the largest donor to ICRAF, with an annual contribution during both 2005 and 2006 of close to US$4.5 million. Of this amount, less than 10% is unrestricted core funding through SAREC. Overall, it is a great concern to the centre that only about 25% of all funding is as core funding. Donors such as EU, IFAD, UNEP, and IDRC are only providing restricted funding, which is hampering ICRAF's opportunity to invest in expensive but important long-term basic equipment. Sweden is also contributing to restricted funding, in particular for the Lake Victoria project.

The most important Swedish contribution to ICRAF at present is the in-kind contribution by the Regional Land Management Unit, RELMA, originally created as a Swedish soil conservation unit in Kenya. RELMA was integrated into ICRAF in 2004, and the Swedish support to this ICRAF unit will be phased out by the end of 2006.

Possibilities to ensure relevant and appropriate programs and projects

ICRAF has established partnerships with different research institutions, universities, national and international NGO:s, as well as governmental agencies. It is also cooperating with other CGIAR centres, particularly CIFOR, CIMMYT, ILRI, and CIAT in research, development, education, policy, capacity building, and training. In this cooperative arrangement, RELMA played an important part. It also gave Sweden a direct link into the work of ICRAF, whereby Sweden was able to influence the programs, in particular the African ones, where RELMA previously, as a freestanding unit, was active. With decreasing core funding, however, ICRAF expressed a concern that the main part of the work that RELMA was doing will be unfunded when the Swedish RELMA support terminates.

Lessons learned and recommendations for continuous work under the CGIAR:

Swedish support and the Swedish engagement in the CGIAR system has a long history. Currently it is dual level support as well as engagement: core funding to the centres through the CGIAR, and an engagement at the overall policy- and central issue level. There is also much more direct support at the individual project-level in terms of SAREC/FORMAS support to individual scientists for research cooperation, and support to Challenge Programs where several centres are cooperating. These present possibilities for Swedish influence at the project level. This funding and influence comes through SAREC. Sida/NATUR is also contributing restricted funding to specific programs related to other Sida activities.

This SAREC dual system seems to be working relatively well, as perceived by at least ILRI and ICRAF (although both organizations later complained that "the Swedish voice is now very silent"!). From a SAREC perspective, the difficulty may be that the system is very much dependent on the devotion and availability of some key people, as well as the existence of knowledgeable, close, and sustainable networks for information sharing and discussion. This also provides an opportunity to forward information and knowledge from the SAREC representation at the CGIAR policy level to the implementation level at the different centres. The question is whether it is even desirable to retain this style of networking for the whole system. Would it not be favourable to maintain a closer, on-the-ground working relationship with some of the centres? This model is used by Finland, that is only supporting centres in line with their own priorities. That may imply, however, that the Swedish position on, for instance,

genetic resources can only be voiced at the CGIAR level, and Sweden's opportunity for influence at the centre level may be reduced. SAREC wants to ensure closer contact with all the centres, as SAREC is contributing to all, without any micro-management. The responsibilities need to be with SAREC desk officers, however, who are the ones that need to be the Swedish policy voice at CGIAR meetings. It is too early to evaluate how the reference group may work. A more detailed evaluation should be done of Sida/SAREC and its relationship with the CGIAR system in a couple of years. This is highly recommended, especially as the CGIAR system is now rapidly developing.

4.2.6 IRRI – International Rice Research Institute

The International Rice Research Institute, established in 1960, is one of the first of the CGIAR centres (CIMMYT, the centre for wheat, grew out of a pilot program in Mexico going back to 1943). IRRI was established with the joint effort of the Ford and Rockefeller Foundations in partnership with the Philippine government.

IRRI is now supported by over 45 contributing partners, which include 24 countries, half a dozen international agencies, and others include foundations, special agencies and private sector organizations. Its annual budget is around US$38 million in 2005 (source annual report). Of this around US$15 million is unrestricted core funding. Sweden is one of the 18 countries that contribute to the unrestricted core (including four Asian developing countries). The Swedish contribution is around US$500,000 per year. That is less than 2% of the total budget and almost 3% of the core budget. Sweden ranks as the seventh largest donor to the core funds but below the top ten in total contributions.

IRRI employs over 150 senior scientists, most at its campus but with a number of them based in partner countries. They work with partner research organisations in over 55 countries and the research network involves over 300 partners. The most well known output of IRRI has been the development of high yielding, short-stemmed rice varieties that began the Green Revolution in rice. IRRI-contributed technologies that have helped rice production to grow at 2.5% per year since 1965, boosting production from under 200 million tons in 1961 to over 500 million tons in 2000. Most recently IRRI describes a major contribution to the increase in the yield of rice in Laos by over 300% in 15 years to the work done with local partners and supported by Switzerland. Among direct outputs to capacity building it counts almost 10,000 scientists who had been educated or trained at IRRI, of whom 1,300 who received degree training. There are larger numbers who have been trained through in-country courses.

The importance of rice as a food crop requires to be restated from time to time. IRRI points out that almost half the world depends on rice as a major source of food. Although most rice producers and consumers live in Asia, leading to a view that rice is only important to Asia, it also an essential staple food and a source of income for millions of in Africa and in South America. Asia contributes almost 90% of the world production while Africa and Latin America produce around 4% each. Rice consumption has been growing in Africa at over 3% per year but efforts to increase productivity in Africa have been limited. There has been a breakthrough in new rice variety in Africa, NERICA, developed thorough cross breeding Asian and African varieties, that shows considerable promise with high yields. Rice also covers significant arable land area and so has key impacts on water and the environment.

IRRI has taken steps to become more active in Africa in 2005. IRRI and WARDA (at Ibadan, Nigeria) have begun collaboration to help solve high-priority rice research problems in Africa. IRRI has allocated an initial seed fund of $1 million from reserves to support this initiative. IRRI has also signed agreements with a number of African rice growing countries.

IRRI continues to evolve with the changes in the research and development context around it. The growth in China and India in research capacity has meant that their national rice research systems have become larger and are also at the frontiers of research and application. Accordingly, IRRI has increased cooperative research and training with national partners. It has increasingly focused on more

advanced research and on global public goods. An interesting example of cutting edge research that it has initiated is to study the impacts on rice production of likely changes in temperature, Carbon dioxide, and other growing conditions due to climate change, in actual field conditions, at three sites in China, India and Philippines. This is budgeted to cost US$25 million. The director gave another area of research that he felt was important. This is the ongoing work on breeding new varieties that can survive being completely covered by water for a period of time.

The Director said that he is very grateful to Sida/SAREC for the consistent and ongoing support. It is important that Sweden has been steadfast among the smaller group of donors that provide core support. He also felt that IRRI is not very high in Swedish priorities because of a belief that rice is only an issue for Asia and Asian countries do not need development assistance. IRRI staff make a habit of visiting donor countries to discuss the partnership and they found no one to talk to at Sida. The IRRI journal "Rice Today" added a "donors corner" section to present donor perspectives and Sida/SAREC was requested to describe its work but has been unable to contribute an article so far. Finally, he said that he would like it better known that rice is also an important product for many African countries and that in Asia there remain a large number of poor countries and the largest numbers of poor people.

4.2.7 CIP Centro International de la Papa

Background

The International Potato Centre (known worldwide by its Spanish acronym, CIP) seeks to reduce poverty and achieve food security on a sustained basis in developing countries through scientific research and related activities on potato, sweet potato, other root and tuber crops, and on the improved management of natural resources in the Andes and other mountain areas.

CIP headquarters are in La Molina, outside of Lima, Peru's capital, in an irrigated coastal valley. CIP also has experimental stations in Huancayo in the high Andes and in San Ramón on the eastern, rainforest-covered slopes, taking advantage of Peru's varied geography and climate[37]

The International Potato Centre (CIP, the Spanish acronym for Centro International de la Papa) was formally established in 1971, and was funded and accepted into the CGIAR in 1972, the first year of the CGIAR's operation. As of 2000, CIP functions as an international organization created by a charter that has been signed and ratified by 10 countries and two United Nations agencies.

Originally, CIP was conceived and operated as a single commodity center; its operational mandate included potato alone. In 1985, CIP's Board of Trustees added sweet potato to the Center's research agenda. And in 1992, the mandate was extended further to include lesser known Andean root and tuber crops (ARTCs). CIP is one of the CGIAR's in-trust germplasm banks. Over the past 30 years, CIP and its partners have collected potato, sweet potato, and ARTC germplasm. CIP currently holds in trust for future generations: 4,049 accessions of potato landraces; 2,140 accessions of 151 wild potato species; 1,135 accessions of advanced potato breeding lines; 3,621 accessions of sweet potato landraces; 1,087 accessions of 107 wild sweet potato species; 2,153 accessions of sweet potato advanced breeding lines; and 1,617 accessions of landraces and wild relatives for nine Andean root and tubers crops. Through CIP's breeding program, 107 varieties that have used CIP's genetic materials have been released in 26 developing countries.

As a centre within the CGIAR, CIP's mission contributes to the overall mission of the CGIAR, in research areas defined by commodities (potato, sweet potato, and ARTCs) and ecoregions (the Andes). In 1992 a strategy was developed to include natural resource management, with specific attention to highland or mountain environments. CIP also serves the CGIAR system as the convening center for the Strategic Initiative on Urban and Peri-Urban Agriculture (now known as Urban Harvest), the Global

[37] Source: http://www.cipotato.org/org/org.htm

Mountain Program (GMP), and the CONDESAN (Consortium for the Sustainable Development of the Andean Ecoregion) Ecoregional Program (source: CIP (2004), *The CIP Vision: Preserving the core, stimulating progress,* Lima: CIP).

Financial report [38]

In 2004 the International Potato Centre achieved a net surplus of US$1.1 million. The result exceeded the budget by US$0.7 million, or 163%, increasing the Center's financial reserves from US$4.5 million to US$5.6 million by the end of 2004.

CIP's total revenues in 2004 were US$22.7 million, 24% greater than 2003 revenues. Total revenues included US$9 million of unrestricted donations and US$13.4 million of restricted donations. At the end of 2004, US$3.6 million of grants approved (15% of total revenues) had not been released.

The increase in donations from Canada and United Kingdom and the new contribution from New Zealand helped to expand unrestricted revenues in 2004. In addition, the continued weakening of the US dollar in 2004 increased CIP's unrestricted and earmarked revenues by US$0.76 million. CIP's revenues are received in US dollars, euros and in several other currencies, but they are booked in US dollars.

Accumulated expenditures reached US$21.6 million in 2004, representing a 24% growth with respect to 2003.

Expenditures grew in all categories. Specifically restricted expenditures grew by 36%, due to the success in fund-raising during the previous years, thereby expanding project-based contributions. In addition, during the year, steps were taken to improve cost recovery from ongoing and new restricted projects, which resulted in additional resources that contributed to project development and implementation.

CIP's financial health continued to strengthen during the year. During the year, 90 new project proposals for US$53.0 million were submitted to donor agencies and 51 were approved for a total commitment of US$12.5 million. The average donation approved per project declined from US$0.29 million in 2003 to US$0.25 million in 2004. By the end of the year, the backlog of projects pending approval increased by US$18.6 million to US$51.7 million.

Austere and prudent policies and programmatic growth reduced the share of CIP's indirect expenses. Following the CGIAR indirect cost ratio guidelines, the indirect cost ratio declined from 13% in 2003 to 12% in 2004. The Centre plans to continue exercising prudent policies to strengthen even further CIP's financial health.

Sida/SAREC support

As in the case of other CGIAR centres, CIP receives a substantive amount of core resources from Sida in general and also program-oriented resources from Sida/SAREC. Though Sweden is only the tenth largest contributor to CIP and provides around 5% of the total budget. Both are highly valued and recognized, particularly because of the streamlined way in which resources are provided and reporting procedures are organized. From CIP's point of view, there is a division of labor between Sida and Sida/SAREC, in the sense that the former contributes primarily financial resources but the latter contributes, in addition, with human resources and access to expertise. In contrast with the core funds they receive from Sida, however, for which there is an identifiable person responsible at headquarters, there is no clearly designed counterpart at Sida/SAREC. This adds a measure of uncertainty to CIP's dealings with Sida/SAREC.

[38] Source: Annual Report2004

- There are several ways in which Sida/SAREC contributes with more than research financing. First, through its joint granting program of Sida/SAREC with FORMAS, which provides access to both resources and Swedish research expertise.
- Second, through the presence of Swedish young researchers through the Junior Program Officers financed by Sida/SAREC.
- Third, through providing resources for specific dissemination activities, such as the publication of a unique set of books on potato varieties prepared over several decades by one of the most distinguished researchers in the field.

From CIP's perspective, these forms of collaboration generate benefits not only to CIP and the constituencies it serves, but also to Swedish institutions. Contacts with Swedish academics through the joint Sida/SAREC-FORMAS granting program and the presence at CIP of young Swedish researchers, are seen as helping to internationalize the agricultural research capabilities of Sweden. This takes place at a time when support for research and higher education are experiencing a period of low growth, and young researchers appear to be choosing other fields.

There was a clear expression of interest in having more intensive professional exchanges between CIP and Sida/SAREC. Also, while recognizing the value of the "arms length" approach to research support, there was a willingness to provide any information and material that may help the Swedish Government to continue supporting international research through both Sida in general and Sida/SAREC

There was a clear expression of interest in maintaining the perceived distinctiveness of Sida/SAREC programs, and differentiating them even more sharply from regular Sida contributions. Sida/SAREC programs were seen as focused on particular programs, supporting well-defined research initiatives and providing access to Swedish expertise. Sida's contributions were seen more in financial terms and as providing core funds that allowed the institution to be more flexible and to cover basic operating costs. (This was not the case for other institutions that received only Sida/SAREC support, which took the form of core support grants). In another case, there was a strong view that support for research and higher education (provided by Sida/SAREC) should not be mixed with general development assistance (provided by Sida regular programs), because they were quite distinct activities requiring different mindsets, experience, and expertise. The objectives, time horizons, institutions, and participants of research outputs, and capacity building initiatives, have little in common with those of regular development programs, and the two should not be mixed.

4.2.8 International Centre of Insect Physiology and Ecology, ICIPE

Background

ICIPE was created in 1970 in Nairobi as a centre of excellence for research and capacity building in tropical insects and other arthropods. Arthropod pests and disease vectors are important constraints to development, adversely affecting food security, human health, livestock productivity, and the environment. Sweden has been supporting ICIPE since 1972. The work is organized around targeting the improvement of human, animal, plant, and environmental health. The program is Africa-focused, working in 24 African countries but with collaborative work in the Middle East, South America, and Asia.

The four head goals are to:

- Improve food security, nutrition and farmers' income through integrated pest management (plant health).
- Reduce levels of malaria in endemic sites in Africa (human health).

- Increase livestock productivity by effectively managing tsetse and ticks (animal health).
- Conserve insect biodiversity and promote environmental health and sustainable livelihoods (environmental health).

These goals are to be achieved both by the outcomes and impacts of research programs, and by training programs under the 'four health (4H)' approach. ICIPE also holds the African Regional Postgraduate Program in Insect Science to build human and institutional capacity in Africa.

Organization

ICIPE has the status of an intergovernmental organization with a charter signed by 11 governments worldwide. It is governed by a 14-member international Governing Board, chaired by a Danish representative.

Results

Several important research outcomes have been presented as well as results from the training programs. The Capacity Building program is run in collaboration with 32 African and 27 non-African universities and has resulted in training of more than 300 PhD students as well as MSc programs at the subregional centres in Ghana, Ethiopia, and Zimbabwe together with the ICIPE headquarters.

A Strategic Planning Review of the ICIPE research and development and capacity building agenda was undertaken during the first half of 2002, just prior to the World Summit on Sustainable Development in Johannesburg, and initiated by the Sponsoring Group (with its Swedish chairperson) and the Governing Council. The review pointed out the following weaknesses and needs:

- Increase cooperation with international, regional and national partners.
- Increase ICIPE's outreach especially in Africa.
- Increase the funding base, especially for core funding.
- Restrict downstream activities and increase strategic research.
- Increase the role of universities in capacity building.
- Strengthen competence in social science.
- Strengthen competence in population ecology.
- Strengthen competence in molecular biology and genomics.

This review resulted in the development of ICIPE's Vision and Strategy 2003 – 2012. The strategy was developed so that ICIPE would be able to meet the new challenges posed in the MDGs, and also the WEHAB priorities presented in the WSSD process. The priority action areas are water, energy, health, agriculture, and biodiversity. The ICIPE Vision and Strategy 2003–2012 presents Major Programme Strategies for the 4-Health areas as well as for Capacity and Institution Building, with important policy implications.

During the current agreement period, 2003–05, ICIPE has strengthened its linkages with NEPAD, and as an active participant in the Pan-African Forum for Agricultural Research in Africa, FARA, as well as the subregional Association for Strengthening Agricultural Research in Eastern and Central Africa, ASARECA. It has increased its presence in West and Southern Africa in research projects.

SAREC support to ICIPE for 2000 was 7.0 million SEK, for 2001 and 2002 8.0 million SEK each. For 2003 –05, SAREC provided annual core funding of 8 million SEK. A request for funding for a new phase of unrestricted core funding for 2006 (11 million SEK) and 2007 and 2008 (12 million SEK/year) has been approved by SAREC. In addition to that, 3 million SEK in restricted support has been allocated to ICIPE for 2005–07.

The ICIPE annual budget has amounted to between US$10 and 12 million for the period 2000–05. Of that approximately 35% has been unrestricted core funding, 95% of the core funding comes mainly from Sweden and Switzerland and to some extent from Denmark, with the remaining 5% from France and Kenya. Program funding is provided by UN agencies, bilateral government donors, foundations, and private companies. The 30 donors are organized in a Sponsoring Group. Sweden was the chair of that group between 1997 and 2004, and was succeeded by Switzerland.

Implications for SAREC; comments and thoughts

At the initiation of the 2002 Strategic Planning Review, that was to be used as background to the Strategy for 2003 –12, Sweden, through Associate Professor C.G. Thornström, held the seat as (an active) chairperson for the Sponsoring Group of ICIPE, building on a decade of experience from being associated with the Centre. Having a long background also in working with the CGIAR, and with issues of importance to the refocused strategy of ICIPE including an important network, he was well placed to convey the Swedish position, in particular in the discussions about a possible stronger linkage between ICIPE and the CGIAR system, as well as to what is directed concerning genetic resources under the UN Convention on Biological Diversity.

Based on the Strategic Review and on discussions with Sida, a more specified application for the period 2006 –08 was sent to SAREC. This would respond to the need for a broader science network with universities and research institutes, including some of the CGIAR centers. SAREC, although no longer chair of the Sponsoring Group, is one of the two major donors, and still active in dialoguing with ICIPE concerning strategy and policy issues. This input is very well received by ICIPE.

Lessons learned and recommendations

In a situation where the main core funding donors are few, among which Sweden through SAREC is one, it is important that SAREC provide a clear and active involvement. If SAREC should only continue to provide core funding without active and clear engagement, for instance due to understaffing, SARECs role will only be that of a funder. For SAREC to be able to follow ICIPE's development under the new strategy as well as in the relationship with the CGIAR, SAREC would need to ensure a continuing engagement. This could be achieved by ensuring that the officer in charge of these issues is granted a long-term engagement for continuity. The ICIPE research agenda has clear linkages to ILRI and other CGIAR centres, which makes it important that the officer in charge can work in that wider perspective.

4.2.9 African Forest Research Network, AFORNET

Background

The Capacity Building in Forestry Research in Africa was initiated by Sweden and AAS in cooperation in 1971. The original mandate was to build capacity of African Forest Scientists by providing grants to young scientists in specific areas of forestry and agroforestry. Out of this AFORNET was established, with a broader mandate and a wider regional representation, during an inception period between 1998 and 2001. AFORNET established five specific research themes under which the network would focus its work:

- Natural forest management and biodiversity conservation.
- Community-based forestry.
- Reforestation and rehabilitation of dry and degraded lands.
- Socioeconomic and policy issues.
- Non-timber forest products and lesser known timber.

The same themes also guide the Thematic Research Program, a second grant awarding initiative under which transboundary research by teams of senior scientists from 2 or more countries is supported.

AFORNET was established as a network, and has also set up three regional "nodes", in Southern Africa, in Western and Central Africa, and Eastern and North-Eastern Africa, thereby including the whole of Africa except North-Western Africa and D.R.Congo. AFORNET now operates as a significant supportive platform for inter-institutional, multidisciplinary, and transboundary collaborative research in forestry. As a network, AFORNET has, according to the Management and Systems Audit that was requested by Sida/SAREC, established formal links with the International Foundation of Science, the International Union of Forest Research Organizations, and the Forest Research Network for Sub-Saharan Africa. AFORNET and its host-organization the African Academy of Sciences, are now trying to establish more formal links to NEPAD and to the African Union.

Organization

AFORNET has a Board consisting of experienced international forestry scientists, with a majority coming from Africa, and the Executive Director. The Board is guided by a Technical Committee, also international but with a majority from Africa. The technical committee is responsible for reviewing and recommending the funding of grant applications submitted via the coordinators for the three regional nodes.

Results

The number of applications (AY), number of grantees (GY) for the Young Scientists Fellowship Program, the same for the Thematic Research Network Program (AT) and (GT) per year since AFORNET came into full operation have been as follows:

Year	AY	GY	AT	GT
2002	31	13	8	2
2003	28	11	15	7
2004	74	38	20	11
2005	49	20	18	6
2006	63	0	16	9

Although the amount of Thematic Research Networks granted seems fairly low, there are often several scientists in the same Network.

As a result of the Systems and Management Audit undertaken in 2004, a workshop (AFORNET Consultative Meeting with Potential Donors and Strategic Partners) was hold "to (1) make a quick assessment of AFORNET's programmatic activities and to identify its special niche in sustainable forest management in Africa; (2) obtain an insight from AFORNET's donors and stakeholders on key areas where AFORNET should focus in the short and medium term; and (3) chart the future of AFORNET financial requirements for implementing these programmatic activities". The discussions at that workshop and the results of a survey by CIFOR concluded that "the African Continent is not training the foresters it needs." Ongoing discussions with AFORNET and IFS on collaboration over the Young Scientists Fellowship Program resulted in further actions. IFS has managed an international competitive granting program for young scientists since the early 1970s where one research area is Forestry and Agroforestry. This program is open to young scientists in Africa, Latin America and the Caribbean, and Asia and the Pacific.

At a meeting in Stockholm where representatives for AFORNET, met together with its host-organization AAS, IFS and Sida, AFORNET and IFS both agreed that there would be advantages in collaborating. How this collaboration should work is still pending the outcome of a Sida-requested evaluation of the African Academy of Science that should be finalized by the end of 2006. So far no evaluation team has been appointed, so the program is stalled, which is causing great concern to the AFORNET Board, including its Swedish members. There will also be a Management and Financial Audit of most African Regional Programs including AAS, which might be another reason for the delay, but this has not been conveyed to the AAS.

SAREC input to the field of capacity building in forestry research in Africa under the African Academy of Science during 1991–01, and what later developed into the AFORNET, was 39.45 million SEK. The funding for AFORNET activities from 2002 to the first half of 2005 (including for a bridging fund to cover for the transfer into AFORNET) was 26 million SEK. SAREC has further agreed to a contribution of 20 million SEK for the period July 1, 2005 to June 30, 2007, through the AAS. Sweden has since the beginning been the only donor to the program.

Implications for SAREC; comments and thoughts

The AFORNET program is considered by some to be a program of high quality. The cooperation between AFORNET and IFS has been good, with several representatives of the IFS Board and Technical committee also in advisory committees of IFS. It is essential not to lose momentum in reaching agreement on collaboration between the two organizations, especially as they are both interested in each others cooperative advantages. The outcome of the proposed evaluation of AAS is therefore essential.

Lessons learned and recommendations

There were a number of requests at the workshop to provide more detailed examples of many of the comments on the need for improved strategic framework and analysis, and how some of these should be incorporated within the processes of monitoring and evaluation. Two team members selected AFORNET to look at forests in Africa as an issue, by looking wider than this project and deeper within the project. A much wider set of documents beyond the visit to AFORNET and its "host", the African Academy of Sciences, were analyzed and there were further discussions with SAREC desk officers and board members of AFORNET.

This additional review raised a number of important issues that cannot be resolved by the current exercise. But they do support the value of looking wider and deeper from time to time. At the same time, an independent evaluation of AFORNET has just been initiated. We have therefore decided to refrain from commenting further on it in this assessment. The evaluation team has provided more detailed notes to UTV and SAREC for their use as appropriate.

This forthcoming evaluation of AAS and AFORNET should be undertaken soon in order to provide a swift solution to the issue of grants for young scientists in forestry and agroforestry. The impacts of delays will be felt largely by the young African forestry scientists, and delay the solution to meeting the large capacity deficits found in a recent CIFOR analysis.

4.2.10 Lake Victoria Research Initiative

Background

In the mid-1990s, the presidents of Tanzania, Kenya, and Uganda took the initiative to make a joint effort to promote development in the Lake Victoria (LV) region. The East African Community (EAC) was given the mandate to coordinate this initiative. In 2000, this was followed by a strategic partnership between the EAC and the international donor community. In April 2001, the EAC signed a partnership agreement with Sweden, Norway, France, The World Bank, and the East African Development Bank

called the Lake Victoria Development Partnership Programme (LVDP). The objective was to improve the quality of life for the people who live in the basin in a sustainable manner. Research is recognized as a crucial component to fulfill this objective.

Work began in 2003 and a strategy for Swedish support to the LV region was developed for 2004–2006. Within Sida, a "Lake Victoria Directorate" is responsible for overall coordination of programs in this region. The main approach is to promote East African ownership of the process with a focus on improving environmental and poverty-related issues, together with HIV/AIDS, which is a major issue.

SAREC support:

2001–02 →SAREC undertook a preparatory phase to develop a base for regional research cooperation.

2003 →A strategy for Swedish support to the LV region is developed for 2004–06.

SAREC:s observations and purpose of the initiative is : *"new knowledge is very much required and existing knowledge needs to be analyzed and integrated in regional context [..] need to make existing information accessible to researchers in the region [..] no structure exists to provide an overview or research and dissemination of research results".*

SAREC inputs:

Phase I: 2002–05 SEK 27,206,000 (including preparatory phase: SEK 4,600,000)

Phase II: 2006–08 SEK 70,405,545

Total – 97.6 million SEK over six years.

Research environment:

An examination was made of other research support in the region. It noted the existence of:

- Regional programs directly linked to Lake Victoria (example-World Bank-funded "LV Environmental Management Programme" but with very few research activities).
- Regional programs linked with LV (some supported by Sida: Vi-Forest, AFORNET, BIO- EARN, AFREPREN, CODESRIA, and others with a wider remit).
- National research institutes and universities in the LV countries (Makerere University and University of Dar es Salaam already have long-term bilateral research support from Sida/SAREC).
- Strong national research institutes on fisheries, forestry, and agriculture existed and they already cooperated with national universities.

It was believed that the existence of these provided a solid base for a regional research network, VicRes.

Organization: A secretariat (VicSec) was formed at the Inter-University Council for East-Africa (IUCES) and two committees to oversee the work (a Policy Advisory Committee- VicPac/ eight members in which SAREC has an observer status and a Scientific advisory Committee- VicSac/ six members).

Objectives of the program:

- To enhance knowledge of land-human environment interactions so as to justify interventions relevant to poverty reduction and environment restoration.
- To promote access to research findings and results in and outside the East African region for effective decision-making.

VicRes gives grants of up to US$50,000 per year to research projects. Projects are supposed to last up to 2 or 3 years.

Key Outputs (as reported)

- VicRes established as an organization.
- Country/ regional reports on wetland and land use.
- Calls for proposals have been made in 2003, 2004, 2005 and 2006.
- Information/ results/ findings posted on IUCEA website (should have been).
- Number of team supported by VicRes increased from 13 – 2003 to 57 – 2005 (does not match the 2006 proposal which states a cumulative number of 53 team grants for research have been made).
- Institutions supporting VicRes activities increased from 18 to 42 (2003–05).
- VicRes scientists increased from 76 to 205 (2003–04).
- Several meeting organized.
- Researchers trained in proposal writing.
- A network of peer reviewers established.

Results

In 2003, 74 proposals were submitted, of which only 37 passed the pre-review process and 13 were funded.

A number of problems were noted – geographical separation, logistical problems due to lack of access to e-mail and Internet facilities, lack of experience of working together, institutional, country and disciplinary differences, refusal of senior researchers to work with juniors, and the poor quality of most of the proposals.

In 2004–05, 19 projects were supported according to the website, and 20 according to the project document submitted by IUCEA.

The website still calls for proposals for April 2005 for the third round. The 2006 proposal reports that 20 project teams were supported from the 2005 competition. The call for 2006 was made with the added theme "Water Catchment Management & Conservation".

Most reports find that VicRes is different from earlier support provided by SAREC. It is more networked, has a clearer local guidance and control, it is seen positively by the beneficiary researchers, and has long-term potential to increase research capacity.

Monitoring + results

There is internal monitoring by the VicRes coordinator and VicPac and by SAREC staff.

Assessment of the implementation of the activities based on the approved work plan and budget:

- Submission of reports by team leaders (monthly, bi-annual and end of year).
- Visiting and discussing project progress with researchers and local partners.

External monitoring:

- Management and systems audit commissioned by SAREC (2004).
- Two financial external audits (KPMG).

Dissemination of findings/results through:

- Team-building meetings.

- Annual general meeting.
- Research meetings/colloquia.
- IUCEA website.

Thoughts and main issues

The IUCEA was formed following the dissolution of the University of East Africa in 1970 by the three national universities of East Africa. It then went into a low activity level after 1977 when the countries stopped their cooperation. With the revival of the East African Community, the IUCEA was revived in the late 1990s. Its membership currently stands at 43 public and private universities and colleges distributed within the three East African countries of Kenya, Tanzania, and Uganda. The first problem faced by the network has been that the research capacity within this larger network is much weaker than in the main national universities, which are supported by SAREC and other donors. Thus while the network is supposed to promote the generation and application of knowledge relevant to poverty reduction and environment restoration, it has had to deal with weak capacity, weak proposals, and a lot of effort to build capacity.

Other weaknesses noted include the lack of delivery of baseline studies of Wetlands and Land Use, which were commissioned in 2002 and later. There are a number of others noted in the 2004 evaluation.

Among the strengths, capacity building, team building, interdisciplinary research, and vision are all noted as positive. The hard and dedicated work put in by the secretariat, coordinators, reviewers, monitors, and many others involved in the network is also noted.

The project design remains and continues to promote applied research, with multidisciplinary teams and also teams with membership from different institutions in the countries of the region. The 2004 evaluation suggested that the grant size is too small for dispersed, multidisciplinary teams. It also commented on the weak or nonexistent linkage between the research and end users (national/regional/international research and extension, development agents, policymakers, private sector, and the local communities). This has been rectified with the third annual meeting including policy makers (both local and national), private sector actors and journalists.

The 2004 evaluation called for better and more dissemination of the results/findings. Applications require better dissemination of results. An examination of the website showed it to be dated, with inconsistent information. Given the very positive evaluation of the ICT investments by SAREC in Uganda, this is unfortunate. There is only one research report that attempts to synthesize Wetland Research in the basin. The report cites many organizations working on the issues as do the project documents of SAREC, yet the references cited and the literature reviewed is very sparse. Either the synthesis is not very comprehensive or all the mentioned efforts are producing very few results.

There is no evidence that VicRes is providing complementary support to other activities in the region. The entire research thrust of the University of Uganda is also supposed to be around the Lake Victoria Basin. No evidence was seen of cross fertilization.

It is entirely unclear as to who "owns" VicRes. The IUCEA does not own it, though it should as most of the funds go to its constituent members and the network is one of the main research networks under its umbrella (now BIO-EARN has been brought under the IUCEA umbrella as well). It seems to be purely an administrator who receives 4% of the funds toward management costs. We are sympathetic to the fact that IUCEA should be the proud owner, and it is probably hoped by SAREC that the feeling of ownership will grow with time. SAREC faces the dilemma between two good principles here – to locate regional initiatives with existing institutions who may or may not be too involved, but do provide fiduciary responsibilities, and a degree of legitimacy as does the IUCEA or to promote new institutions.

Gender concerns As would be expected, there is some attention to gender issues in VicRes. The evaluation mentions that this is weak. The 2006 proposal has a special section on gender analysis prepared by a female Makarere University researcher. It makes the standard observations on the gender gaps among researchers in the region, low capacity to do gender analysis, the standard recommendations on the need to be gender sensitive, more mainstreaming of gender, and the need and value of gender disaggregated data. This appears to be entirely ritualistic, meeting the criteria of checking off on the gender box.

Finally we believe that in VicRes (as with SAREC as a whole) there remains a misguided appreciation of the "high efficiency" of the network, in as much as coordination and administration use only less than 10% of the total allocation. The high efficiency or low administrative costs are accompanied by low effectiveness (certainly on the criteria of quality of proposals, dissemination of results, and applications for development). Many of the problems are listed in the evaluation document of 2004 and are also suggested in the 2006 proposal that seeks to remedy them. Another important change in the proposal from IUCEA for 2006 –08 are suggestions that the International Foundation of Science and Stockholm Environment Institute will be involved to "strengthen networks," but this is not detailed in the program or the budget. The 2006 proposal provides a response to the 18–20 Nakhlatec recommendations in Appendix 4, and generally promises to act on each. But based on the lack of updated information on the web site the corrective process appears to move slowly.

Overall, we find the initial design, the number of issues that have arisen, the rate at which constraints and limitations have been recognized, by SAREC and the local stakeholders, the speed, coherence, and effectiveness of corrective changes to be slow and inefficient. This is especially worrying given the very high density and long duration of both Sida and Sida/SAREC involvement in the region. Particularly in this region, given the investments, it would be desirable for SAREC to have stronger local presence and to institute other mechanisms for increasing long-term linkages that promote greater engagement by SAREC, Sida, Sweden and others, that can increase effectiveness of the research to development chain.

4.2.11 Marine Science in East Africa: CORDIO, KICAMP and WIOMSA/MASMA

Background, Organization, and Results

Sida/SAREC regional support to Marine Science in East Africa was initiated in 1989, building on experience from bilateral research support to Mozambique and Tanzania, complemented initially by minor support to regional program for training, workshops, and courses. Many courses were arranged in cooperation with UNESCO/Intergovernmental Oceanographic Commission (IOC). The important political event, the Arch Workshop and Policy Conference 1993, which resulted in a Resolution on Integrated Coastal Zone Management in East Africa and Island States, signed by ministers of environment and natural resources from Madagascar, Mauritius, Mozambique, the Seychelles and Tanzania, was cosponsored by SAREC and the World Bank.

The regional long-term in-depth courses have to some extent been cosponsored by other organizations, and have gathered students from Kenya, Tanzania, Mozambique, Sri Lanka, and Chile. The program was driven in cooperation between the Departments of Oceanography and of Environmental Economics, University of Göteborg, Departments of Zoology, Marine Geology and Geochemistry and of Social Anthropology at University of Stockholm, and the Institute of Marine Science, Zanzibar, at the University of Dar es Salaam, and the University of Eduardo Mondlane, Maputo. Among the Swedish partners was also SWEDMAR at the Board of Fisheries, Göteborg, that provided technical support. The 1996 evaluation report (Sida evaluation 1996/35) saw these courses as an efficient and economic way of producing Masters and PhDs with limited local resources. Gradually, the Program also contributed to awareness building and information dissemination.

On top of the regional network of marine scientists and of high level politicians that was created, cooperative linkages, with the UNESCO program/IOC and with the World Bank were established. At SAREC at that time was one professional, Dr Anders Granlund, in charge of the marine sector. He made a long-term commitment to the issues, and he had a knowledgeable, close and sustainable network of partners, at universities in Sweden and in the region, at IOC and at the World Bank, without which he would not have been able to reach such a successful outcome.

SAREC inputs (in millions SEK) to regional marine science initiatives for 2000–06 are given in Table 8.

Table 8. SAREC support for regional marine science initiatives

Organization	2000	2001	2002	2003	2004	2005	2006
CORDIO	x	3.25	3.25	3.25	4.5	3.5	4.0
KICAMP	x	2001–	2003:	5.7	Bilateral:	2004–06	12
WIOMSA/ MASMA	1.02	6.0	7.2	7.2 + 2*	8 + 2*	9 + 2*	10 + 1*

* The WIOMSA/MASMA support for 2003–06 is specified for WIOMSA and for partners at Södertörn.

x : The exact figures are not available.

WIOMSA

The Western Indian Ocean Marine Science Association (WIOMSA), inaugurated in 1991, started as a forum for marine scientists in 1993, supported by SAREC. The 1996 evaluation saw WIOMSA as one possible coordinating mechanism for the regional marine program for Eastern Africa. In 1995 a Marine Research Grants program, MARG, funded by the IOC, since 1998 through the Swedish SWEDMAR and cofinanced by SAREC, was initiated and located at WIOMSA. WIOMSA held its first General Assembly and elected its Board of Trustees from Tanzania, Mozambique, Somalia, Kenya, Seychelles, Comoro, Madagascar, Reunion, Mauritius, and a member from outside the region.

By the end of the 1990s SAREC suggested phasing out the East African Regional Marine Science Program, as coordinated from Sweden. The reason was that a critical mass of marine scientists had been achieved and that the main future support could be channeled through the bilateral support to Tanzania and Mozambique. The responsibility for coordinating the regional marine research could be channeled through WIOMSA. In this process SAREC initiated support to WIOMSA to coordinate a research program on Marine Science for Management, MASMA, where initial scientific and management support would come from a group at Södertörn's University College, starting in 2000.

The MASMA program seeks to strengthen applied and interdisciplinary research on both natural and social science aspects of coastal environmental issues for the purpose of "advancing knowledge that is directly relevant to society and resources management". An important component of MASMA is its competitive grants program, which currently is administered by WIOMSA in cooperation with Södertörn. The grantees are selected by a program committee consisting of Swedish and regional scientists. Priority areas are: fisheries and food security, sustainable tourism, ecosystem research, pollution 'hotspots', and monitoring and predictive coastal science. MASMA would also contribute to highlighting the significance of scientific information in defining coastal management programs as well as developing educational material.

MASMA would contribute to strengthening WIOMSA by supporting research and research capacity building and collaboration/partnership building, focusing on improved coastal zone management, while the bilateral cooperation between SAREC and the Universities in Tanzania and Mozambique would continue with the aim of strengthening their research capacity.

WIOMSA, which had been depending almost entirely on Sida/SAREC for support, is now employing a fund-raising officer and is currently cooperating with UNEP, USAID, and as partner in a GEF project. They would appreciate more involvement from management authorities and to enlarge pilot projects to include more outputs. A new cooperative project is the Socio-Economic Monitoring in Western Indian Ocean, SocMonWIO, started in June 2006, where WIOMSA is cooperating with CORDIO and others.

SAREC will continue to support WIOMSA from 2007 onward.

KICAMP

The Kinondoni Integrated Coastal Area Management Programme, KICAMP, is developed under the Sida/SAREC Marine Research initiative. It was initiated in 2000 to establish necessary links between research and the implementation of the results, thereby demonstrating the role and importance of research in planning and decision-making in coastal zone development. This pilot project, that is to be finalized this year, has proven successful and will be further analyzed. It will not get any further regional support from SAREC from 2007.

CORDIO

The Coral Reef Degradation in the Indian Ocean, CORDIO, was initiated as a result of the widespread coral bleaching discovered in 1998. It is a locally driven regional initiative conducted at local research institutions in 11 countries, and builds on capacity in the East African and West Indian Ocean region built as a result of Sida/SAREC:s Regional Science Marine Program. During 1999 and 2000 Sida/SAREC, together with Swedish Research Council, The Swedish Foundation for Strategic Environmental Research, the World Bank, Finnida, and WWF, provided support for the initial phase of CORDIO, to monitor distribution and effects of coral bleaching in the West Indian Ocean. Sida/SAREC contributed about 75% of the research budget during 2001–03 when the program concentrated on understanding the ecological processes essential for healthy, functioning coral reefs, processes of recovery and options for rehabilitation, and on socio-economic consequences of the coral bleaching. The third phase, 2004–06 has been more multidisciplinary, with wider focused projects in three regions: East Africa, South Asia, and West Indian Ocean. The activities are arranged into six broad but interlinked themes:

- Ecological and socioeconomic monitoring of the health of coral reefs, impacts of human activities and climate change.
- Targeted research focused on understanding essential ecological processes for the coral reefs.
- Management and policy actions that use the research results to mitigate future damage.
- Alternative livelihoods that improve the quality of life of the coastal population.
- Education and awareness of impacts of human activities on coral reefs.
- Networking and communication to disseminate results and strengthen capacity.

The SAREC support for 2004–06 included funds for a final report and a symposium to disseminate results. One of the projects introduced during this period is the cooperative SocMon WIO project where WIOMSA is one of the collaborating partners.

The project has had its central coordination from Sweden and with regional centres in East Africa (Kenya), South Asia (Sri Lanka), and Indian Ocean Islands (Seychelles). An assessment done for the support during this last period emphasized the need for a stronger local ownership of the project, including an advisory board of local scientists. The project will not get any further regional support from 2007.

Implications for SAREC: comments and thoughts

The Sida/SAREC Regional Marine Science Program is one of the SAREC programs with the longest history. Even though it did not officially start until 1989, already at the end of the 1970s SAREC in cooperation with UNESCO/IOC and FAO commissioned a study of "Eastern African Marine Research and Marine Resources" to assess the need for research cooperation in the region.

The work that resulted in SAREC:s strong positioning in the Marine Science arena was, as very often happens, the result of strong and very competent persons, not only at SAREC but also at UNESCO/IOC, and the World Bank – a network of dedicated, influential experts, cooperating in an international scientific high-quality network, including not only Swedes but several experts from universities in East Africa and Western Indian Ocean. This close sustainable network has the main ingredient for success: a dedicated desk officer at SAREC who was assigned and stayed long enough to be able to follow the development of the program and its different components. This seems to be the most important condition for Sweden to not only provide support to in international organization or regional network/system, but to be able to provide the right type of support at the right time in the process, as well as be politically able to follow the process.

In the case of the SAREC Marine Research support program, it is fairly obvious that there was a need to strengthen the research capacity at some regional universities, which then could provide capacity building to a wider network of scientists. At the beginning, the need was most pronounced within the different disciplines. It takes certain skills, however, to adjust the support to the perceived needs, which is being done, when providing bilateral support to different universities and regional natural science research networks (including with Swedish resource persons or coordinators). The next phase was to contribute to a broader, interdisciplinary focus of the networks (with Swedish wider-focused specialists as resource persons).

Lessons learned and recommendations

The most important lesson learned on how the SAREC marine program has developed is that there is an absolute need of seeing the current situation in the perspective of earlier development! There is a need to use the "institutional memory" by tapping on the knowledge that exists among those who have been involved in the process – both from a Sida/SAREC perspective but also regional scientists with long experience in the process. Within SAREC there tends to be a fairly frequent rotation among desk officers. It is important to utilize the "institutional memory" as 'advisory group,' and to ensure that 'advisors' to be used should not only be Swedes or 'like-minded,' but also cooperating partner country members.

5. Thematic Research on Natural Sciences and Technology[39]

5.1 Background

Support for regional and international programs in this area focuses on building capacities in the engineering, medical and agricultural sciences and technologies, and in their scientific foundations. Contributions are channeled through regional entities, international organizations, and also through Swedish institutions that are actively engaged with developing countries. Themes covered include basic sciences (mathematics, physics, chemistry and biology), natural resources technologies, technology policy research, urban environmental problems, disaster prevention, biotechnology and biosafety, and energy technology and policy.

[39] The note on ISP is prepared by Francisco Sagasti and the notes on BIOEARN and AIT are prepared by Amitav Rath.

At the international level ISP at the University of Uppsala and TWAS are important examples. (unfortunately shortage of time prevented the coverage of TWAS). And at the regional level there is AIT (could also have been covered under the environment theme but is funded under this theme) and BIO-EARN. The BIO-EARN network attempts to build capacity in modern biotechnologies, develop policy and useful outputs in four African countries, with a strong link to a Swedish institute SEI. AIT provides an interesting example of a rapidly evolving Asian regional institute and of Swedish efforts at coordination towards the priority issue of environment in Asia.

In these three cases the regional programs are focused both on capacity building with a tilt towards the generation and application of important new knowledge. The international program, in this case, is more focused towards long term capacity building in the basic sciences with a focus on the poorer countries.

5.2 Cases: Natural Sciences and TechnologyResearch

5.2.1 BIO-EARN: The East African Regional Programme and Research Network for Biotechnology, Biosafety and Biotechnology Policy Development

Background

In 1998, when BIO-EARN started, it was to a large extent pioneering biotechnology, biosafety, and biopolicy capacity building in partner countries in Eastern Africa (Ethiopia, Kenya, Tanzania, and Uganda). The objectives were to (i) enable the countries in the region to develop biotechnologies and policies according to their own needs, abilities, and opportunities; (ii) promote collaboration in biotechnology, biosafety, and biotechnology policy development to address key challenges and opportunities in the region; and (iii)foster communication between scientists, policymakers, biosafety regulatory officials and private sector, nationally and regionally.

Phase I and II (1999–05) of the BIO-EARN Program focused on capacity building and PhD training through 20 PhD projects and several capacity building training workshops. The Program is in its third phase, shifting focus from capacity building to research and policy collaboration and is based on five regional, interdisciplinary research and development projects. The specific areas addressed are: Agricultural biotechnology studies on specific biotic and abiotic stress problems in sorghum, cassava, and sweetpotato; Industrial and environmental biotechnology studies to treat and utilize industrial and agricultural waste for bio-energy and value-added chemical production; Functional institutional and national biosafety regulatory systems with a focus on harmonizing regional biosafety implementation; further strengthening a Network of Excellence to respond effectively to strategic development challenges of the region; and harmonization of knowledge-management, communication, and information to support efficiency and effectiveness of innovation systems in the sub-region.

To achieve the outputs, five regional and interdisciplinary projects will be implemented:

- Developing technologies to ameliorate abiotic and biotic stresses of sorghum.
- Sustainable cassava and sweetpotato production for food and industrial use.
- Development of efficient technologies for sustainable treatment of high strength agro-industry wastewater in Eastern Africa.
- Development of improved technologies to utilize industrial and agricultural waste for bio-energy and value-added chemical production.
- Enhancing product development opportunities and supportive policies.

Organization

In Phase I and II, Stockholm Environment Institute (SEI) was responsible for overall Program management. The four countries had a national BIO-EARN focal point: the Ethiopian Science and Technology Commission, the Kenya National Council for Science and Technology, the Tanzania Commission for Science and Technology, and the Uganda National Council for Science and Technology.

During 2006–09, the Eastern African network partners will be fully responsible for the management of the Program. The new management structure consists of a Governing Body, a Program Advisory Committee, Regional Office, and the Implementing Institutions. The Program is coordinated through a BIO-EARN Regional Office, a BIO-EARN Secretariat, housed at the Inter University Council of East Africa (IUCEA). IUCEA is already hosting and managing the Lake Victoria Research (VicRes) Initiative, a project under the Lake Victoria Development Partnership (LVDP) supported by Sida. Considerable coordination within the large research projects will, however, be done by the Principal Investigators.

The role of the Governing Body is to oversee and make decisions on the general direction of the Program, and ensure integration and harmonization with national activities. The Program Advisory Committee will provide technical input to the Program, evaluate the Program Research Fund project proposals and advise the Governing Body and Regional Coordination office on various Program implementation issues. The Regional Office is responsible for running the Program, including subcontracting all project partners. SEI acts as an advisor to the BIO-EARN secretariat in the early stages of this program phase and provides administrative and logistic support to Swedish collaborating institutions and Eastern African partners, in particular by supporting the policy project.

An extensive network consisting of partners from East African qualified research institutes, including university departments, Councils or Commissions for Science and Technology from the four East African countries, Swedish professionals from relevant research departments at Lund University, Swedish University of Agricultural Sciences, Royal Institute of Technology, Stockholm, and Policy Research Institutes such as African Centre for Technological Studies, ACTs, Intermediary Biotechnology Service, the Netherlands, and Institute of Social Studies, the Netherlands. The different network partners demonstrate wide, integrated approach.

Results

Among results reached within and by implementing the program are: successful graduation of 20 BIO-EARN PhD students in agricultural, environmental, and industrial biotechnology and increased collaboration in technology development and technology transfer partnerships in some 15 East African research, development, and policy institutions. The Program has been raising awareness on key biotechnology policy issues in the region and can thus act as a regional "think tank." It has facilitated the development of biosafety regulatory structures and building regulatory capacity, including scientific biosafety assessment, and it should stimulate the dialogue between the policymakers and scientists on research and policy issues, both nationally and regionally. This will contribute to a more effective priority-setting, technology development, and technology dissemination.

In 2004 an Evaluation of BIO-EARN was undertaken for Sida (Sida Evaluation 04/09). This evaluation found that overall BIO-EARN, through its action-oriented approach to selecting partners, focus areas, and projects by operating at senior research level rather than at the institutional and government levels, was incremental in a rapid start-up of the program, but that there was a lack of emphasis on multidisciplinary research programs. The evaluation saw a lack mainly from a student-training perspective, but also from the perspective of implementing research results and addressing them from a policy perspective this could be a constraint. Furthermore, the evaluators wanted clearer links and more synergy between different aspects of the program. These issues are addressed in the third phase by applying a more integrated approach with a broad scientific base and a stronger emphasis on policy approaches.

Sida/SAREC support to BIO-EARN is shown in Table 9.

Table 9: SAREC input to BIO-EARN in MSEK:

Year	SAREC contribution
1999	9
2000	15
2001	15
Total Phase I	39
2002	20.5
2003	19.3
2004–2005	16.2
Total Phase II	56
2006 *	16.2
2007*	19.5
2008 *	20.2
2009 *	21.1

* Decided by SAREC Research Committee 2005.

SAREC has been the main contributor to BIO-EARN since its inception, and has decided to contribute 77 million SEK for its third phase, 2006–09. This support was conditional on there being in place an appropriate, regionally owned, governing structure formally agreed, and with skilled and qualified individuals to implement administration and operational activities at the secretariat.

Additional support has been pledged by some Eastern African governments. Further contributions have been sought from Rockefeller Foundation. BIO-EARN is also establishing cooperation with the programs Biosciences eastern and central Africa (BecA), New Partnership for Africa's Development (NEPAD), and Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA).

A BIO-EARN competitive research fund is suggested in order to support strategic demonstration projects, policy research, and integrative research across the Program. The research fund will particularly serve the integration of agricultural, environmental, and industrial biotechnology and the development of industrial agriculture.

Implications for SAREC, lessons learned and recommendations

SAREC, when addressing the phase III program proposal and application for funding, sent out the proposal for peer review by 5 external experts (not identified). SAREC and the external experts were thus able to study the development of the BIO-EARN during its phases. There are the publications on BIO-EARN Program accomplishments 1999–04 with extensive lists of workshops and of publications, impact assessment reports of phase II BIO-EARN projects and program activities in the four countries. There is the 2004 Evaluation of BIO-EARN, phase I and II including its recommendations for the third phase. There is also the phase III program proposal and funding applications, and reports and recommendations by the external experts. This means that the information base and the assessments on which a decision of further funding would be taken would be very good, in particular if the external

reviewers have a broad representation in terms of subject area and geography, including from East Africa.

What might be a drawback is that the officer-in-charge at SAREC for the BIO-EARN program and the one for the CGIAR, programs where the linkages would be important, is not one and the same. Even though SAREC has a "cluster" structure, where the different groups have regular meetings and possibilities for discussions, the workload would most probably not allow for much discussion. And this may hamper the possibilities to clearly address the linkages between the programs.

5.2.2 International Science Program

Background

The International Science Program (ISP) at Uppsala University started in 1961, even before SAREC was created. It grew out of a series of meetings and contacts with physicists in Latin America, and initially had the support of UNESCO and the International Atomic Energy Agency. ISP began as a fellowship program, but rapidly expanded to provide support to individual researchers, and later to provide institutional support, largely in the form of equipment and materials. At present it aims to assist developing countries in Africa, Asia, and Latin America to strengthen their domestic research capacity within the chemical, physical, and the mathematical sciences. ISP focuses primarily on least-developed countries.

Approach and organization

Support goes to carefully selected research groups and regional networks, and is given on a long-term basis to enable the groups and networks to become self-sustaining. The support is adjusted to the needs of the individual groups, and comprises support for equipment, consumables and literature, exchange of scientists, and postgraduate education on a sandwich basis. The work is carried out in cooperation with one or more strong research groups in Sweden, in the rest of Europe, and in the regions. Fellowships take the form of "sandwich programs", with a period at Swedish universities intercalated between periods in the home country. In this way, it has been possible to reduce brain drain.

ISP takes a very long-term perspective on the task of building scientific capabilities and institutions in poor countries, adopting a 20–25 year time-frame for it over all activities, and ensuring that support it maintained during this period. The annual level of grants to the institutions it supports ranges between US$50,000 and US$100,000. About 30 Swedish academic institutions now participate as counterparts to developing country universities and research centres, and do not limit themselves to administrative or organizational tasks, but participate actively in joint research projects.

ISP makes judgements on the feasibility of supporting a particular institution or research group based on a mix of criteria that include the scientific soundness of the request, the characteristics of the local institutional setting, and its possibility of harbouring a successful research group, and also on the prospects of building and maintaining research capacity over the long term.

In several cases ISP has built networks that combine poor and middle-income countries. For example, it has used the capacity built in Peru over more than 30 years to assist in the development of research capacity and postgraduate training in Bolivia. This allowed using scientists familiar with the problems and challenges of poorer countries in the region, and at a much lower cost than using scientists from Sweden or other developing countries. Similarly, when Laos approached the bilateral program of Sida for support to build capabilities in geophysics, it became apparent that several limitations (including lack of knowledge of English) would not allow following a conventional approach. ISP was able to identify an institution in Thailand that had received support from ISP in the past, and arranged for Laotian students to obtain their MSc in Thailand, which has a similar language, with support from the Sida bilateral program.

Rationale and results

ISP is unique among development assistance programs because it focuses on building basic research capabilities in poor countries, and the support provided by Sida/SAREC is quite exceptional among donor agencies. The reasons for supporting basic research capabilities have been articulated by the ISP Director in the following terms:

- Research is important in higher education and has direct impact in terms of educating scientists and professionals, and indirect impact in the sense of creating a climate favourable to rational evidence-based way of thinking.
- Too little of world research and development is directed to the problems of developing countries. Developing country scientists are needed to do this, but first it is necessary to train them.
- Basic science capabilities are required to access knowledge and participate in research networks that are of importance to developing countries.
- It is necessary to have research capabilities and competencies before applied research tasks can be undertaken, and this usually requires training in the basic sciences.
- Researchers who have been rigorously trained often become policymakers in their countries, and they take with them a rational approach to policy formulation and implementation.

ISP aims at rewarding the pursuit of scientific excellence and considers that each developing country university should have a few world-class, stable, institutionalized research teams. It provides support to achieve this overall objective in the countries where it works.

There are several instances in which ISP has supported young students and they have remained in their countries of origin. For example out of 70 PhDs in physics in Sri Lanka, 25 have been trained with support from ISP and only two of these are temporarily (not permanently) out of the country. In Africa there are two PhDs in physics per million people, and out of more than 60 physics research groups in Africa more than 20 are related to the ISP.

In addition, ISP has helped several institutions to build and consolidate their research capabilities by assisting them in the selection and choice of equipment, training technicians to operate them and teaching how to prepare samples for analysis.

Finally, ISP also handles other bilateral research programs, funded by Sida/SAREC, which refers to research capacity.

Target countries

ISP supports projects in a limited number of countries selected by the ISP board. The supported countries are listed below. Through the networks, additional countries are involved in ISP supported activities.

Africa: Burkina Faso, Cameroon, Ethiopía, Ghana, Kenya, Malawi, Mali, Mauritania, Nigeria, Senegal, Tanzania, Uganda, Zambia, Zimbabwe.

Asia: Bangladesh, Cambodia, Laos, Sri Lanka, Thailand.

Latin America: Ecuador, Peru.

ISP Budget

For 2005 the Sida/SAREC allocation to ISP activities was 26 million SEK and the Uppsala University grant 1.4 million SEK. In addition ISP administers a number of bilateral Sida/SAREC grants for

special programs amounting to about SEK 6 million. Sida/SAREC is about the only source of support for the International Science Program, even though there is the possibility of applying for funding from the European Union.

Final remarks

The International Science Program is a rather unique and most successful initiative that has had a large and significant positive impact in many poor countries. SAREC support initially, and Sida/SAREC support at a later stage, have been essential for ISP to achieve the results it has obtained for more than 40 years. In addition to providing continued support to ISP, it is important to explore whether it could be expanded into other fields of science, and to maintain a flexible approach that allows ISP to engage not-so-poor country scientists in assisting their counterparts in poorer countries.

5.2.3 Asian Institute of Technology (AIT): Energy and Environment in Southeast Asia

Background

The case of AIT proved highly interesting in several ways. First, the history and evolution of AIT, which illustrates well some of the changes in the context for development and research support in Asia. Second, AIT has substantial support from both Sida, other than SAREC, and also from Sida/SAREC. It therefore provides a small window into the similarities and differences in approach between Sida and its department, SAREC. Third, the Swedish government declared in 1999 that environmental issues are a priority for its cooperation programming in Asia. The location of a regional and coordinated office in Bangkok provides a window to larger issues of coordination over issues, countries, and departments.

AIT was established in 1959, as SEATO[40] (Southeast Asia Treaty Organization) Graduate School of Engineering to assist in advanced engineering education in Asia. It was then funded by SEATO members, mainly USAID. In the early 1970s, Thailand agreed to become the host country and promulgated resolutions establishing AIT as an independent, international institute for postgraduate training and research in engineering and applied science. AIT became an autonomous institution empowered to award degrees and diplomas, with core support from the Government of Thailand for around 20% of its budget, and also supported by several Western and Asian countries. AIT describes its mission "to develop highly qualified and committed professionals who will play a leading role in the sustainable development of the region and its integration into the global economy."

AIT is composed of three schools (School of Engineering and Technology, School of Environment, Resources and Development, School of Management) and one extension division (nondegree training, consultancy, and services).

AIT has evolved into a unique institution in the region, with an international intake of students from over 70 countries, predominantly from Asia, but also with some from the other regions. AIT has collaborating research activities with 120 faculties from 26 countries, and has sponsored 202 research projects. AIT is managed by a Board of Trustees with 30 members from 25 countries. AIT has a relatively diversified funding base with over 21 organizations from different countries providing some level of support to its total budget. It is also noteworthy that eight countries from the region, including Thailand, provide contributions to the AIT budget as well as 12 OECD/DAC countries.

AIT has a new President and a new strategy document to guide its evolution over the next 10 years. AIT vision and strategy are an excellent balance that begin with the existing strengths and incorporate a number of key opportunities and challenges emerging from globalization, such as the need for more alliances across countries; the tremendous emerging capacity within Asian countries including its host

[40] This was a part of the military alliances of the cold war period, an architecture designed to prevent communist expansion. The treaty came into effect in 1954 and was dissolved in the 1970s.

country as well as the diversity of capacity and needs within the region, such as new links with different organizations that leverage strengths and overcome gaps; an increased focus on interdisciplinary work with special focus on environment, development, and innovations, among many other interesting dimensions.

Swedish support to AIT

Both Sida and Sida/SAREC are long-term supporters of programs at AIT. Sweden is a key partner and in 2004, Swedish contribution was 12% of global AIT funding.

Sida support

Sida has supported AIT since 1988. Over the years, the Sida support has reoriented its focus toward capacity building, environment, and poverty-related issues. The first Sida/AIT agreement provided Masters training for nationals from Lao PDR and Vietnam. Over the years, the Sida support was expanded to include faculty secondment, a pre-masters bridging program, master degree scholarships, upgrading of the AIT environmental engineering laboratory, electric power system management program, language training, and short-term training for the staff of Mekong River Commission.

The program also expanded coverage of issues to support the development of environmentally sustainable aquaculture in the Sida program countries of Bangladesh, Cambodia, India, Pakistan, Lao PDR, Sri Lanka, Nepal, and Vietnam. Since 1996, the Swedish support was restricted for the nationals of Cambodia, Lao PDR, and Vietnam.

Ongoing Sida/AIT programs

Sida-AIT Scholarships Programme: 2004–2008 This supports "Capacity Building for Sustainable Development through Higher Education and Training in Cambodia, Lao PDR, and Vietnam". The objective of the program is to "strengthen the capability of institutions in Cambodia, Lao PDR, and Vietnam to address issues related to poverty alleviation and environmentally sustainable natural resource management through higher education and training of relevant personnel". Funding amounted to SEK 31,500,000.

Sida Doctoral Scholarships: 2005–2009 In 2004, Sida approved four doctoral scholarships for nationals of Cambodia and Lao PDR for research involving aquaculture outreach activities or natural resources management. Funding amounted to SEK 1,516,196.

GMSARN Networking: 2004–2005 The Greater Mekong Subregion Academic and Research Network (GMSARN) is an initiative of 11 academic institutions to respond to priorities in the region's development agenda, particularly as they relate to the network's four focus areas: environmental management, infrastructure planning and management, information and communications technology, and the development of small and medium-scale enterprises. As the host of the network secretariat, AIT supports networking activities through joint research, workshops, seminars, public awareness campaigns, GMSARN newsletter, and website. Sida support is for expanding and strengthening the GMSARN networking. Funding amounted to SEK 300,000.

Academic Peer Review The recent reforms at AIT emphasized the need for further rationalization of the existing fields of study and for reorganization of schools along the lines of technology, development, and management. These needs were raised by the AIT Board of Trustees in 2003 and by the Administration in 2004. Sida supported AIT for the academic review and restructuring. Funding amounted to SEK 300,000

Wetlands Alliance Programe: 2005–2008 Since 1989, Sida has provided support to AIT Aqua Outreach Project (AOP) in three phases. The third phase of support ended on 31 December 2004. In October 2004, AIT submitted a concept paper to Sida for the development of a new stage of the Aqua Out-

reach Initiative, but as *a core program* of the Institute. Working in close collaboration with three other regional partners, AIT proposed the establishment of a Wetlands Alliance to build local-level capacity in aquatic resources management. Aiming to address issues related to poverty alleviation in and around the Mekong region, AIT, the Coastal Resources Institute (CORIN) of the Prince of Songkla University, the WorldFish Center, and WWF will work together to build on their combined strengths in education, training, conservation, development, and research. Funding amounted to SEK 1,865,000 for the preparation of the Wetlands Alliance Program, and SEK 44,750,000 for the Wetlands Alliance Programme during 2006–08.

Secondment of a Swedish Expert/Faculty in SERD: September 2005 to August 2007. Sida provided support for the secondment of a Swedish Expert to AIT/School of Environment, Resources and Development. In addition to teaching and research, the expert's main responsibility is to help in the development and implementation of the Aqua Outreach Programme and Wetlands Alliance Programme.

The combined support from the five programs from Sida is around 80 million SEK (approximately 10 million USD).

SAREC support

SAREC support to AIT began in 1994, much after Sida. It supported three regional research programs. Two ended in 2005 and one continues.

Asian Regional Research Programme in Energy, Environment and Climate (ARRPEEC): 1994–2005 ARRPEEC is a regional network launched by SAREC and AIT in 1995 to enhance capacity and preparedness of the Asian developing countries regarding identification and assessment of national GHG mitigation options. The program was developed in three phases (1994–97/1999–01, 2002–05). The final phase involved 22 Asian national research institutes in four regional research projects. Total funding amounted to SEK 39,500,000.

Renewable Energy Technologies (RETs) in Asia – A Regional Research and Dissemination Programme: 1996–05
This program was initiated in order to promote selected mature and nearly mature renewable energy technologies, through a regional research and dissemination program focused in six poor (LIC) Asian countries (Bangladesh, Nepal, Lao PDR, Cambodia, Vietnam, and the Philippines) in 1996. The first (1997–98) and the second phase (1999–01) of the program involved four technological options: photovoltaics, solar drying, biomass briquetting, and institutional stoves, and examined the country-specific requirements for these technologies. The final phase (January 2002 to August 2005) aimed at the consolidation of the activities achieved so far while emphasizing information dissemination.
Total funding amounted to SEK 32,500,000.

Asian Regional Research Programme on Environmental Technology (ARRPET): 2001–07 This program's main research themes are: Wastewater treatment and management, Sustainable solid waste landfill management in Asia, Improving air quality in Asian developing countries, and Industrial and hazardous waste treatment and management. The first phase of ARRPET went from January 2001 to December2003. The present phase of ARRPET (Phase II) involves 18 national research institutes from eight Asian countries, (China, India, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand, and Vietnam).
Total founding amounted to SEK 56,000,000.

The total funding for these three networks by SAREC is 128 million SEK (approximately 16 million USD).

Observations and Comments

1. Over the years, SAREC support has moved similarly to Sida support and has reoriented its focus towards the poorer countries of the region with Cambodia and Lao PDR as the highest priority,

followed by Vietnam which is doing better economically now and has been lowered in priority, and in energy the program has widened its remit to include Bangladesh and Nepal.

2. In our view, rightly, SAREC support is not exactly the same as for Sida. Two of the three networks, on environment (ARRPEEC), and on energy and climate change (ARRPET) incorporate additional countries from the region such as China and India that are not the priority countries for bilateral programming. This has provided these two networks with the opportunity to collaborate with stronger research institutions than the network on RETs that focused only on the poorest countries.

3. Extensive discussions were held with the teams involved with each of the SAREC-supported activities. Given the very extensive outputs, selected outputs were reviewed in detail as well as all synthesis reports. The overall conclusion (within the limits of time) is that the research work undertaken is excellent. They all provided for efficient use of funds, the work was all relevant to specific priority problems of development in the region and to Swedish priorities. The practice at AIT of making available almost all research outputs on the web must be commended. Further the projects paid attention to different needs of different stakeholders by using multiple dissemination channels and different types of media. The question remained, however, that to achieve the objective of making changes in practice in each of the areas of research concern, more needs to be done by all stakeholders, and while AIT and SAREC are each a small part of the solution, there remains potential to go further.

4. The different character of the networks and their memberships resulted in different demands on AIT and different types of research outputs. In the RET project, with partners with lower capacity, the main burden of the research fell on AIT and the effort included more capacity building elements. The RET project also aimed to design and disseminate solutions that were appropriate to the partner countries. The work done was appropriate to the target population and countries. The applied element of promotion of these technologies will need much greater support, including finance, at the national level and design changes that involve elements beyond the research, training, and capacity building elements that have been funded. AIT has over 40 years of experience with alternative energy and has one of the best engineering equipment and laboratory facilities for low-cost, small-scale energy options that should and can be an important element of solutions towards the energy needs of the poor and also for the reduction of greenhouse gases. It seems to us that it is unfortunate that over the past decades with shifting donor attention these issues have received only sporadic support. The RET effort could have pushed AIT further than the design allowed. It is hoped that in any new discussions a much more strategic framework is developed by both AIT and SAREC to see how to transform the high capacity toward greater applications and use.

5. The ARRPEEC project generated a very substantial output of research as documented in over 80 published papers, 10 books, and 45 papers presented at workshops and seminars. It is also excellent that the project sought to influence different stakeholders such as policymakers, through 22 newsletters and 16 short policy reports meant for specific countries and for specific issues across countries.

6. The ARRPET program which focused on wastewater treatment, solid waste, air quality, and industrial and hazardous waste treatment and management had again somewhat different character than the other two. This was more technical and engineering oriented. It identified several important problems – heavy metals, persistent organic pollutants and pulp and paper effluents and the research also suggested several novel approaches – phytoremediation, bio-treatment and bio-remediation toward their solution. The discussions suggested that some socioeconomic assessments should be added in both priority setting and assessing solutions. This appeared to be an area of weakness at AIT, and capacity needs to be built. Finally, if these are to be applied, funds for demonstration projects on pilot scale will be required.

7. Several evaluation studies have been made of Sida funding to AIT. Evaluation department reports 96/12 and 00/10 cover the environmental support by Sida 99/1, the RET project supported by SAREC. The 96/12 report said that it was highly commendable for Sida to attempt with AIT an effort to bridge different departments and disciplines into a new focus area of the environment. This largely succeeded, though both sponsors underestimated the difficulties. The main weaknesses were strategic. AIT had greater difficulty in bringing new modes of cooperation into practice. Sida was "not an active partner", there were "8 persons in charge over five years" and "a consistent Sida approach was lacking". It recommended that Sida should continue for at least two more years and exit if it chooses after that. The program was so successful that there would be no difficulty finding other funding. It strongly urged Sida's support to environment in Southeast Asia should be looked at one strategic program. The present fragmented way of work where different departments cooperate with different organizations within and around AIT is not efficient. The 99/1 evaluation report highlights the different outputs that were achieved in the countries of the network and how that related to the existing capacity of each country with those with weak capacities achieving poorer and less sustainable results. Noteworthy recommendations from the 00/10 report are – use of the research activities require user participation and pilot projects; monitoring and evaluation of impact and uptake of research is required; these should involve poor farmers and also use cost/benefit methods.

8. Without a careful reading of the contribution memoranda approved by Sida, it was not possible to distinguish if there were features that were unique to the Sida contributions versus the SAREC contributions beyond a few differences observed. These include larger elements of training and capacity building and a greater focus on targeted support to three countries in the case of Sida, and with a greater openness to research issues in the case of SAREC. And, of course, the Sida contributions focused on aquaculture and wetlands and SAREC on energy, climate change, and hazardous waste treatment. Given the elements of Sida support, however, there is no obvious reason why the Sida grants could not have been made by SAREC. The point here is not that SAREC should have funded the other Sida programs or that other departments of Sida should not fund AIT. But clearly some level of coordination is important. Also, to the extent that other departments of Sida sometimes fund activities that are almost identical to that of SAREC (not duplications), the narrow remit of this review does not easily allow for statements on gaps within the thematic programs of SAREC because if another department of Sida is undertaking an activity that SAREC, could also undertake, it is better use of resources that SAREC avoids duplication.

9. Even though all the programs, by both Sida and SAREC, support elements of sustainable development, natural resource management, environmental degradation and remedies, it was stated that there is no contact at AIT between Sida staff and SAREC staff who plan their visits separately. In response (only to pointed questions) it was suggested by AIT staff that there was room for greater coordination on the ground between the two different departments of Sida and they suggested a visit to the SENSA office.

10. The Swedish Environmental Secretariat for Asia (SENSA) is "a knowledge-based entity, within the Swedish International Development Cooperation Agency (Sida) which promotes regional development cooperation, serving Sida's head office and its offices in the region. Its aim is also to cooperate with Swedish and regional organizations of importance for an environmentally sustainable development in Southeast Asia". "This initiative was in direct response to the government's Asia Strategy which heralded an increased level of activities in Sweden's cooperation with Asia as regards environmental issues." (http://www.sida.se/sida/jsp/ sida.jsp?d=1382&language =en_US). "During the initial years from 2002 to 2005, SENSA emphasized the establishment of relations with regional organizations, the identification of regional environmental initiatives, the setting-up of appropriate working procedures and devising relevant thematic areas within which to work. In early 2005, an

evaluation concluded that the results experienced during these initial years were largely positive and a continuation was recommended. Some outstanding issues were, however, highlighted, the settlement of which was necessary in order to improve the functioning of SENSA" (Sida web site).

11. A Sida officer working out of the SENSA office was very knowledgeable about all the activities at AIT, including the projects supported by Sida and those by SAREC. In discussions it was clear that there was a much greater need for cooperation between different arms of Sida, and this is not an issue that is limited to SAREC. His knowledge about all activities at AIT, of environment and natural resources, and his long experience at both Sida and SAREC over more than one decade, suggests opportunities for greater cooperation and synergy (at least in Southeast Asia on the thematic area of environment and natural resource management) through improved use of the human resources available to Sida.

12. The evaluation report (Sida Evaluation 05/34) reviews the SENSA effort, and useful to mention in the light it throws on missed opportunities for improved coordination and effectiveness within a thematic area deemed to be a priority to Sweden, Sida, and SAREC. It states "After discussions extending over several years", starting in 1999, SENSA was set up in 2002. It was in fact "an old idea originating from Sida/NATUR in the beginning of the 1990s" but got fast-tracked with the Swedish policy of 1999 to prioritize environmental cooperation with Asia. It started with a process of problem analyzes within Sida, coordinated by NATUR, with the involvement of INEC, SAREC, SEKA, and the Asia Department (ASIEN). The final proposal was approved by the Sida Board of Directors in January 2002. This suggests that a carefully considered and deliberate decision-making process is valued much more than speed of response at Sida as a whole and not only to SAREC.

13. Unfortunately, the long deliberations did not avoid the results – "that SENSA failed to emerge as a very clear entity", "its role and mandate was perceived as vague by the Sida departments NATUR, INEC, SAREC, and SEKA (page 17)" and "The chain of command is complex". To ensure inter-department cooperation Sida has established several Reference Groups. One is internal with representation from NATUR, INEC, SAREC, DESA, and ASIEN. There is an External Advisory Group, to facilitate participation of Swedish environment interests, made up of individuals for the Ministry of Environment, other government institutions, research community, civil society and the private sector. "The internal Sida working group did not reach a unified opinion on the SENSA role, mandate and objectives, although the external group had put forward wishes and hopes on SENSA from their different spheres of operation. Despite the best intentions, both groups contributed further to the already vague role, mandate and objectives of SENSA". This underlines the difficulties of coordination that must not be underestimated while all high-level documents on aid talk about improved coordination.

14. *It is surprising that there does not appear to be any reference groups that include the "partners" in the region.* The evaluation suggested "SENSA should benefit more from an advisory structure based in the region." But then, only to "closely linked to the Swedish Embassies and their bilateral activities."

15. Data gaps seem to be a problem across Sida, wider than SAREC. The appendix four of the evaluation lists Sida-funded programs on environment in Southeast Asia. It is noteworthy that two of the three projects that are being supported at AIT by SAREC are not listed.

16. It is also noteworthy "The more prominent request from Sida partners is to establish more fruitful links with Sida by having a Sida presence in the region. Improved coordination and more effective handling of programs and related matters are on top of the partners' wish list."

6. Programs and Institutions – Latin America[41] and Asia[42]

6.1 Overview Latin America

Sida/SAREC stepped up its involvement in Latin American regional/thematic networks in the late 1990s. It expanded its support for the Central American branch of the Facultad Latinoamericana de Ciencias Sociales (FLACSO), which is a graduate teaching and research support organization, and for the Consejo Latinoamericano de Ciencias Sociales (CLACSO), which is a large network of research and higher education centers throughout the region. This is probably because of increased funding from Sida/SAREC and the fact that these regional/thematic networks have the capacity to effectively use funds. In the case of FLACSO and CLACSO, Sida/SAREC now is the main source of funds.

It has also recently begun to support an environmental economics program at the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), but this represents a relatively small percentage of CATIE's resources. Its unrestricted core support nature, however, makes it a rather critical component of their budget, and in addition Sida also provides a substantive amount of core support for CATIE as a whole.

While other donors have left the social sciences scene in Latin America (USAID, the Ford Foundation, the Canadian International Development Agency, the UK Department for International Development, the Dutch International Cooperation Agency), Sida/SAREC continues to provide significant support in this field. Moreover, other remaining donors (IDRC, UNESCO, NORAD) have shifted away from core to program support in the social sciences, but Sida/SAREC has maintained its core support approach to funding which is highly appreciated by the recipient institutions.

There are *clear benefits deriving from the fact that the networks supported by Sida/SAREC include both relatively more and less advanced countries in Latin America*. For example, given the difficult and unstable conditions in Honduras and Nicaragua, Costa Rica provides an effective and secure base for FLACSO to actively work with universities, research centres and students from these countries. Similarly, the fact that CLACSO works primarily through several research networks that include institutions from more advanced countries in the region (e.g. Chile, Argentina), and countries with weaker social science capabilities (e.g. Bolivia, Paraguay), allows for an intensive exchange of experiences, knowledge and academics, to the benefit of those countries and institutions that have not consolidated their research capabilities in the social sciences as yet. The support provided by Sida/SAREC to social science research institutions in Latin America allows them to maintain their independence, particularly in fields such as sociology, political science, and economics. It is in these areas where independent views are often at odds with official government positions, and research centres often face not-so-subtle pressures and threats. In addition, this support is closely related to areas considered of priority importance for Sweden and to democratic governance in particular.

Finally, given the relatively limited presence of Swedish government agencies in Latin America, *Sida/SAREC support to the social sciences is one of the more clearly known and recognized expressions of Swedish presence and interest in the region*. This is particularly the case of the support provided through CLACSO, which has an extensive regional network of affiliated centres and faculties, and which organizes highly visible regional events.

[41] The three cases here from Latin America are by Francisco Sagasti.
[42] The two cases here from Asia Latin America are by Amitav Rath.

6.2 Cases: Latin America

6.2.1 CATIE, Centro Agronómico Tropical de Investigación y Enseñanza

Institutional information

CATIE's history begins in May 1940, during the VIII American Scientific Congress, in Washington, D.C. During that decade, visionary people such as Henry Wallace, United States Secretary of Agriculture, proposed the creation of an institute dedicated to tropical agriculture. The institute would lend its support to American countries in agricultural research and help train their national personnel.

On October 7, 1942, the Board of Directors of the Pan American Union (today's Organization of American States, OAS) founded the Inter-American Institute for Agricultural Sciences (IICA), with headquarters in an agricultural area in Turrialba.

Months later, the Costa Rican Minister of Agriculture and Industry, Mariano Montealegre Carazo, representing the President of the Republic of Costa Rica, Dr. Rafael Angel Calderón Guardia, signed the Agreement to establish IICA in Turrialba, Costa Rica.

In the 1960s, IICA changed its headquarters to Coronado, Costa Rica. The Turrialba campus became the first IICA field office. During those years, discussions begin within IICA about the need to separate research and education activities from the Institute's global tasks.

On July 1, 1973, the Tropical Agricultural Research and Higher Education Center (CATIE) was created through an agreement between IICA and the Costa Rican government. The Center would focus on research and higher education. CATIE's headquarters were established at IICA's field office in Turrialba.

During its 30 years of existence, in alliance with local, national and international organizations, CATIE has become a Centre for academic excellence, technical cooperation and research. Throughout its history, by means of its programs and projects in every Member Country, the Centre has dedicated its efforts to improving the standard of living of rural families in the American tropics, while embracing a holistic vision of human activity and its environment.

Today, CATIE has become a leading regional centre that is both dynamic and committed to rural development. These qualities have allowed it to expand its geographic scope and have earned it regional and international recognition.

CATIE's work areas

CATIE is made up of specialists from diverse parts of the world: scientists, professors, and field technicians who work with and for local, national, and regional institutions in each one of the member countries.

Leaders in sustainable rural development CATIE's Education Program consists of two large areas: on the one hand, CATIE's Graduate School is internationally recognized for its high standards of quality. Graduates from CATIE's five masters programs and its doctoral program are its best letter of introduction.

On the other hand, the Training area offers ongoing opportunities for young professionals to update their knowledge. Courses are offered in the student's country of origin (based on the needs of the institution or organization that requests the course) and at the CATIE Central Headquarters where more than 15 strategic courses are given every year.

CATIE's specialists work in various thematic groups. Each one of these groups is made up of professionals from different disciplines. This integration of knowledge and experience allows CATIE to offer integral (interdisciplinary) advisory services in:

Department of Agriculture and Agroforestry

- Coffee: Quality, Profitability and Diversification
- Livestock and Environmental Management
- Research and Development of Clean Technologies for Musa
- Management and Sustainable Use of Plant Genetic Resources
- Modernization and Competitiveness of Latin American Cacao Plantations
- Agroecology

Department of Natural Resources and Environment

- Forests, Protected Areas and Biodiversity
- Global Change
- Center for Competitiveness of Eco-enterprises
- Integrated Watershed Management
- Socioeconomics of Environmental Goods and Services

Advising, investigation and support in

1. Forest Seed Bank
2. Geographic Information Laboratory
3. Biotechnology Laboratory
4. Soil, Vegetable Tissue and Water Laboratory
5. Plant Protection Laboratory
6. Animal Nutrition Laboratory
7. Root Research Laboratory
8. Botanical Garden
9. Human Resources
10. Communications Unit

6.2.2 CLACSO, Consejo Latinoamericano de Ciencias Sociales

Brief background [43]

The Latin American Social Sciences Council (Consejo Latinoamericano de Ciencias Sociales-CLACSO) in an international nongovernmental institution created in 1967 to promote and develop social science research and graduate teaching; to foster exchange and cooperation among researchers in the region and outside it; and to disseminate the knowledge and research results produced by social scientists, particularly among social movements and civil society organizations. Through these activities CLACSO contributes to rethink, from a pluralistic and critical perspective, the problems faced by Latin American and Caribbean societies.

In late 2006 it had 174 member institutions, which include research centres and undergraduate and graduate social science teaching programs in 21 countries of the region. It is the epitome of a thematic

[43] See: http://www.clacso.org.ar/difusion/IntroClacso.htm for background information. A detailed assessment of its activities is provided in the evaluation report by Rodrigo Arocena, Eric Hershberg and Rosemary Thorp, *Consejo Latinoamericano de Ciencias Sociales (CLACSO): an evaluation*, Stockholm, Sida Evaluation 05/23, Department of Research Cooperation, September 2005.

research network in the social sciences, and over time it has acquired a very high reputation, both for its scholarly and academic work, and for the efficiency and effectiveness of its operations.

Member institutions and their researchers participate in a variety of activities organized by CLACSO, including:

- Working groups that carry out research and studies on themes and topics of key importance to the region.
- Annual scholarship competitions for junior and senior researchers, focused on issues relevant to the region.
- Cooperation with colleagues from Africa and Asia.
- A special program of studies on poverty in the region, jointly coordinated with the Comparative Research on Poverty (CROP) program.
- A Latin American Social Observatory (Observatorio Social de América Latina) that focuses on conflict and social protest in the region.
- Distance education for social science researchers taught from CLACSO's virtual campus.
- Publication of books produced by researchers from the CLACSO network.
- Dissemination of the material produced by Latin American and Caribbean researchers through an open access virtual library, accessible through the Internet, and through the Electronic Academic Network of CLACSO.
- Organization and participation in a variety of international and national academic events.

Through these activities the Council mobilizes the efforts of hundreds and even thousands of social scientists in the region, and its contributions have been decisive to the revitalization of Latin American critical thinking. CLACSO publications and audiovisual material, which circulate widely through the region, have put the work of Latin American and Caribbean sociologists, political scientists, historians, anthropologists, and economists within reach of the wider public and have contributed to raise the level of social sciences research and academic production in the region.

In addition, its active program of South/South academic exchanges has increased significantly cooperation and exchange between social scientists, intellectuals and social leaders from Africa, Asia, and Latin America and the Caribbean. This has contributed toward strengthening thinking and practice on democratic governance, poverty reduction, alternative views of development, and social strategies and policies in the developing regions

Sida/SAREC support to CLACSO

Sida/SAREC support to CLACSO began in 1997 at a relatively modest level and totaled 13.4 MSEK for 1997–99, but increased significantly to 34 MSEK for 2000–03, to 43 MSEK for 2003–05 and to 56 MSEK for 2006-08[44]. Sida/SAREC is now the largest CLACSO donor and its contribution accounts for about 75% of the total provided by donors, but considering the contributions made by member institutions and other Latin American sources (for example, for the periodic meetings of the General Assembly), this percentage comes down to about 50% of the total resources of CLACSO. NORAD is another important donor, but on a much smaller scale than Sida/SAREC, and other supporters include IDRC, CIDA, UNESCO and some governments in the region.

[44] Source: "Research cooperation on thematic programs", working document provided by Sida/SAREC.

This financing structure is quite a change from the earlier years of CLACSO, when the Ford, McArthur and Tinker foundations, together with the Dutch government and IDRC, provided substantive support. With the exception of IDRC, which contributes about 1% of CLACSO's budget, all of these supporters have left the scene. This makes the contribution of Sida/SAREC crucial for the operations of the Council.

6.2.3 FLACSO, Facultad Latinoamericana de Ciencias Sociales

Background

The Facultad Latinoamericana de Ciencias Sociales is an international organization with regional and autonomous capacities. It is constituted by the states of Latin America and the Caribbean. FLACSO was founded in 1957 with the sponsorship of UNESCO to promote learning, research and cooperation in the social sciences throughout the continent. In addition to its Regional Administrative Departments, the General Executive Secretary is located in Costa Rica. FLACSO is also organized in ten academic branches or divisions, which are located in Argentina, Brazil, Chile, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Mexico, and Dominican Republic.

FLACSO: Academic Branch Costa Rica

After six years as a Program, the academic branch FLACSO-Costa Rica was finally created in 1997. Although the location of this branch is in Costa Rica, the range and scope of its research, teaching, cooperation, and dissemination seeks a regional orientation.

The duties of FLACSO – Costa Rica

- Conduct excellent academic research on social, political, economic, and environmental issues to assist the definition of public policy.
- Ensure the training of human resources in the social sciences through doctorate and specialization courses.
- Cooperate with universities, national governments, local and international nongovernmental organizations, to promote the development of the social sciences.
- Disseminate the diverse advances in the social sciences with a special emphasis on the results obtained from the research at FLACSO.
- Promote the exchange educational materials in the social sciences within Latin America.
- Offer technical assistance to national governments, multilateral organizations, and civil society.

International Cooperation and Strategic Alliances

The activities of FLACSO Costa Rica promote the exchange and comparative study of the experiences and conditions of social development in different places. These experiences and conditions reveal the realities and efforts of developing societies. International cooperation opens diverse academic opportunities, including research, instruction, and debate about the experiences of social development in Latin America and beyond. Strategic alliances constitute a working mechanism of FLACSO-Costa Rica, which privileges cooperation with the organizations of FLACSO in the region, governmental institutions, NGO:s, the private sector, and the academic branches in the hemisphere and throughout the world. The cooperation with universities from the northern hemisphere is important for the development of joint programs in research and education.

Focus areas

FLACSO Costa Rica develops regular activities for education, professional enhancement, research and dissemination that revolve around eight focus areas. Every institutional activity seeks to incorporate analytical frameworks that are gender and ethnically conscious.

- Social Development and Public Policies.
- Globalization, Labor Market and Inequity.
- Transborder Migration.
- Local Economic Development.
- Decentralization and Municipal Management.
- Democratic Governability and Political Institutions.
- Sustainable Tourism.
- Population and Territory.
- Social Movements.
- Social development and Public Policies.

6.3 Overview Asia

A number of Asian economies have been undergoing rapid changes and economic growth driven partly by globalization of economic activities, and with it the major reductions in poverty in a number of countries. These changes have led to most donors, including Sweden, to reduce allocations to Asia (and also to Latin America). Based on government policy SAREC allocations in Asia is relatively small. In Asia there is a focus by Sida/SAREC on environment and energy, in line with government priorities, and one example of a regional network on environment is provided below. Other important research organisations based in Asia and covered elsewhere in this report include AIT, ICDDR,B. and IRRI. The biggest change in the past decade is the ongoing transformations in the two largest countries in the world – China and India, both in economic terms and also in research. It is noteworthy that there appears to be little engagement with China.

Among the many changes, some of the most relevant for research cooperation with developing countries include the increased value of cooperative research between and among these countries. The two cases here provide evidence of the value of networks within the region and between Asia and other regions. Analysing these issues more carefully for the future are critical for Sida/SAREC in designing and planning their support for research capacity building and use of knowledge.

6.4 Cases: Asia

6.4.1 EEPSEA – Economy and Environment Program for Southeast Asia

This is a program supported by the Social Sciences thematic area of SAREC. It is placed here primarily for convenience. This support by Sida/SAREC reflects the priority of Sweden to environmental issues in Asia.

The three activities of EEPSIA conducted in 2004 and described below show the blurring of boundaries between disciplines in many research areas today. That is a good thing and is a part of best practice. But it does raise issues of boundaries of thematic programs – the boundaries are in fact very loose, and this intermingling of boundaries creates problems for all bureaucratic organizations. Many have tried to overcome this through interdisciplinary groups, problem focus, matrix structures, but some of the inherent complexity has to be endured and does not disappear.

Summary of the project

The Economy and Environment Program for Southeast Asia was established in May 1993 to support training and research in environmental and resource economics. Its goal is to strengthen local capacity

for the economic analysis of environmental problems so that researchers can provide sound advice to policymakers.

EEPSEA works in ten countries: Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Cambodia, Lao PDR, China, Papua New Guinea, and Sri Lanka. The program uses a networking approach to provide financial support, meetings, resource persons, access to literature, publication outlets, and opportunities for comparative research across its member countries.

EEPSEA's structure consists of a Sponsors Group, comprising all donors contributing at least US$100,000 per year; an Advisory Committee of senior scholars and policymakers; and a small Secretariat in Singapore and Cambodia. EEPSEA is a project administered by IDRC on behalf of the Sponsors Group.

Sida/SAREC are members of EEPSEA's Sponsors Group of participating donors that includes IDRC and the Canadian International Development Agency (CIDA). In 2004–05, Sida/SAREC funded the program up to US$455,000 and increased this effective January 2006 to CAD $570,000/year. IDRC provides funds of CAD$800,000/year and CIDA provides CAD$400,000/year.

Typically, researchers learn about EEPSEA by various types of announcements and apply for a research or training award. Most applicants attend one of EEPSEA's courses before or in conjunction with their research project. Budget ceilings for research projects are CAD$24,000–35,000, depending on the country. Researchers may be affiliated with a university, governmental or nongovernmental organization, and grants are normally made to that institution. Most projects are carried out by teams of researchers.

Results

Until 2005, EEPSEA provided training to 545 people and supported 160 research projects.

The activities of the last year (2004–05) provide a sample:

Training

- EEPSEA provided courses on Physical Science of Pollution Control for Economists.
- On Economics of Pollution Control for Chinese researchers.
- On effective methods for fund-raising for research and training institutes to maintain sustainability and quality.

Research

EPPSEA gave one postdoctoral award to study at Gothenburg University, Sweden, and approved eight research projects, two of which were PhD thesis awards.

Workshops

Two regional workshops were organized, in Bangkok and in Singapore, and it cofinanced two other national meetings.

Publications

Eleven research reports and 11 policy briefs were published.

Translations

Ten policy briefs were translated into Vietnamese and distributed widely in the country to reach local policymakers and the wider public.

Evaluation

There are regular evaluations of the program. In January 2005, an external evaluation of EEPSEA's last five years of operation was completed. This report stated that: "EEPSEA did an excellent job in building capacity for policy-relevant environmental economics research in Southeast and East Asia. Its success is the product of several factors: sensitivity to its researchers' needs, abilities, and interests; a roster of outstanding resource persons who understand and share EEPSEA's goals and methods and are highly committed; and a secretariat whose efficiency is remarkable, especially in view of its small size".

The report urged further attention to:

- "More scholarly interaction among EEPSEA's somewhat reticent researchers and encourage them to take on more responsibility for advising on EEPSEA research projects and teaching in its courses."
- As the program remains dependent on external resources, accelerate the efforts to nurture a local community of scholars that can eventually provide the intellectual support that has thus far come mainly from outside the region."
- Improve "the selection of research projects, the advising of researchers, the design and implementation of training courses, and the dissemination of research results to academic and policy audiences and the public."

Comments and Observations

- Capacity building is an ongoing process. It does not stop being important in Asia as compared to Africa. The only difference is that there are more local resources in Asia compared to Africa and that does affect larger choices of donors.
- A similar network based out of Kathmandu for South Asia and funded by another combination of donors has not done as well, because South Asian network assumed that capacity was already well developed in the region and it was only a matter of running research competitions.
- EEPSEA hews close to a tried and oft repeated formula adopted by IDRC. It selects gap areas of knowledge and research; often where a relatively small amount of money, up to a few million dollars, can make a difference in knowledge production; backed with heavy (expensive) research support; and often in partnership. SAREC and IDRC are often preferred partners of one another as they complement relative endowments.
- Here local ownership of the network is given slightly lower emphasis in structural terms than other objectives. But relatively transparent processes, wide dissemination of results and attention to quality often allow network members to have ownership of the resultant research.
- On the role of SAREC, it was stated that SAREC staff do an excellent job in responding to the requests from the Secretariat as needed; they were "amazingly hard pressed" and do better with written communications; and they rarely find time to have any further interactions than attending the annual meeting of the network, which they do diligently. This provides an useful example of SAREC working with other research donors to solve its human resource deficit and provide support to an area determined to be a priority by the government of Sweden.

6.4.2 Democracy and Social Capital – Utkal University

Sida/SAREC has funded a research project on Democracy and Social Capital in Segmented Societies, which examines the growth and changes in civil society and their impact on the environment, government performance and the well being of the poor. The project links researchers in Uppsala University with four research organizations in South Africa and India (two in each country). One group of researchers is based at the Department of Political Science, Utkal University, Bhubaneswar, Orissa.

The project was started in 1996 and was born out of a directive by the government of Sweden to support research on the role of democracy for development and was completed in 2002. The positive results led the researchers to seek grants for a second phase, which has been approved and is continuing. At Uppsala University the research is located in the Programme of International Studies, which is a multidisciplinary programme covering four departments and two faculties.

This case is untypical of all the other cases here in that it examined one single research team, within one small research grant, while as most of the other cases have examined relatively large networks and organizations, usually working on a wider set of issues and research programs. The selection was based on the facts that it provided one case of relatively small amount of funds, it also provided for a window into research support in India, into the translation of a directive from the government to the research on the ground, and, also to observe the uses of the result in one poor region of India, with large numbers of poor and marginalised people.

The principal findings are:

1. The research was successful and provided a reasonable number of outputs compared to the relatively small resources. There are over a dozen research reports and papers that grew out of the support. The research findings support the hypothesis that increased democratic participation combined with civil society engagement and capacity are positive for poor people and they deliver increased benefits to the poor. The knowledge gained has been embedded in the teaching programs at Utkal University and at Uppsala. They have been presented at various workshops in India, Africa and Sweden.

2. Even with rapid increases to research expenditures and capacity in India there is still a shortage of funds for this kind of research. Hence the macro observations of funds and capacity are not sufficient to determine the validity or otherwise of support.

3. The linkages between the three countries were valuable for the researchers involved and to the outputs.

4. The researchers at Utkal University were a part of the network and have had no direct contact with Sida/SAREC.

7. Appendix

Other Approaches to the Assessment of SAREC:s support to international and regional thematic research programs: a proposed survey of key policy and decision-makers[45]

The objective of the proposed survey is to assess the effectiveness of SAREC:s current and alternative allocations of financial resources to regions and themes through different channels to build science, technology and innovation (ST&I) capacities in developing countries. An alternative approach that was discussed to overcome data limitations due to the lack of evaluations on effectiveness of different channels was to use a formal survey of key stakeholders and their perceptions, using numerical scores, and then summing the preference curve to find the subjective preferences of a more "efficient" portfolio. This was finally abandoned, as this did not truly replace the missing detailed studies but ideally would complement them; and, given the time allocated, all within the summer period, there were concerns about possible delays in getting returns. It is provided here as a possible model for future use.

The questionnaire for the survey will be administered to groups of senior policy and decision-makers in SAREC, Sida, the Ministry for Foreign Affairs and other relevant Swedish government bodies, as well as senior academics familiar or involved in SAREC:s operations. The list of persons to be interviewed will be defined in consultation with Sida/SAREC authorities in charge of evaluation.

- The questionnaire will be divided into two parts. The first will focus on the overall pattern or structure of allocation of SAREC resources to regions and themes through alternative channels. Taking the current allocation structure and based on their knowledge, expectations, and preferences, interviewees will be asked to suggest their preferred resource allocation patterns that better reflect Swedish priorities and objectives, are likely to improve results and will have greater impact or effectiveness. These alternative portfolios or patterns of allocations will be processed, aggregated, and evaluated in terms of their institutional results and effectiveness, using the information gathered in the second part of the survey. For example, questions will include: which percentage of resources should go to Africa, Asia and other regions; which percentage should be allocated to health and medical sciences, social sciences and so on; which percentages should be directed to support national entities, networks or international institutions; and also to indicate also whether there is a close interrelation between allocations to regions, themes and channels, so that, in their view, some combinations may not make sense from a Swedish policy and decision-maker perspective.
- The second part will attempt to assess the impact of changes in financial resource allocation to regions, themes and channels. In order to do this, the survey will attempt to estimate the shape of functions that relate resource allocation and expected results and impact. These functions are a way of codifying the assumptions, preferences and expectations of senior policy and decision-makers with regard to specific changes in resource allocation to regions, themes and channels, and the way they will affect the performance of the overall SAREC portfolio. For example, one of the questions that may be asked is:

  Starting from the current level of support for research in X region and using a scale with values –5, –4, –3, –2. –1, 0, +1, +2, +3, +4 and +5, where –5 represents the most negative impact and +5 the most positive impact, what would be the impact on science, technology and innovation capacity building and problem solving of reducing the level of support to zero or to half the current level? Alternatively, what would be the impact of increasing it by 50 percent or of doubling it? Please take into consideration past experience

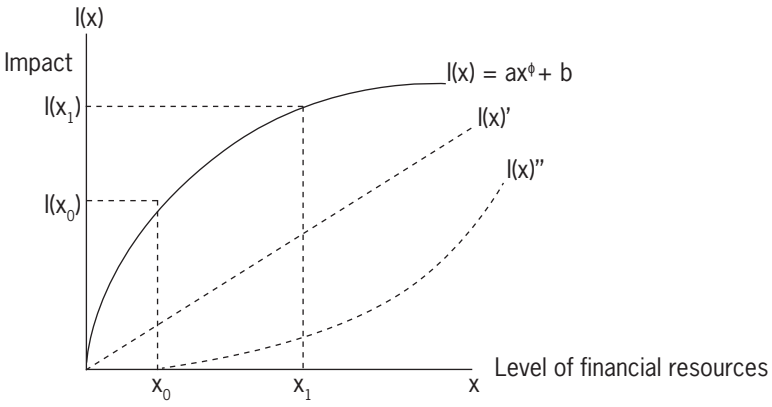
[45] This was prepared by Francisco Sagasti. It was a proposal considered in May/June at an early stage in determining methods of assessment. However, given time and resource constraints, it was decided not to conduct the proposed survey as part of the assessment.

in the region and the field, the existence of alternative or complementary sources of support, and the absorption capacity of institutions.

- Similar questions would be asked for other regions, for fields, and for channels to provide support, considered in an independent manner from each other. In addition, respondents will be asked to list what they consider the three most effective combinations of region, theme and channel, giving them a score up to +5 for each, and the least effective combinations of these, giving them a score down to –5 for each.

- The average results of the interviews could be depicted in the form of a linear, convex or concave function that links changes in resource allocation to regions, themes and channels with judgments about their impact as shown in Figure 1. The aggregate impact of changes in resource allocation would result from combining the impact values obtained from the three independent functions weighted by the changes in resource allocation patterns.

Figure 2: Impact of changes in resource allocation (to regions, themes and institutions, or combinations thereof)



- The aggregate impact will be a function of the resources allocated to each region, theme and channel, and is given by:

Aggregate impact = $\alpha_r I(R) \times \beta_t I(T) \times \delta_c I(C)$

Where,

I = impact indicator
R = Region; α_r = share of resources allocated to region r
T = Theme; β_t = share of resources allocated to theme t
C = Channel; δ_c = share of resources allocated to channel c, and

$$\Sigma\alpha_r = 1; \Sigma\beta_t = 1; \Sigma\delta_c = 1$$

- The following draft guide for the interviews with senior policymakers and researchers would take between 15 and 20 minutes to administer and would provide most of the information required to estimate the impact of changes in the level of support to programs.

Guide for the survey interviews with policymakers and researchers

At present we are engaged in a study of the way changes in external support for scientific and technological research affects the capacities and performance of science and technology institutions in developing countries. We would appreciate your collaboration in answering the following questionnaire, which we are using to gather information about perceptions, views and opinions on this matter. As we are interested primarily in the subjective assessments of reasonably knowledgeable people like you, and not on exact or precise measures of impact, we would be grateful if you could answer as many questions as possible —even if you think you may not have all the relevant information, experience or knowledge to answer the questions.

As a working hypothesis, we are considering an agency that spends about US$100 million per year and that allocates that amount to the various developing regions and to specific research themes through different institutional channels. As starting point, this agency allocates its resources in the following way:

Allocations by region

Region	Percentage
Africa	35
Asia	10
Europe and North America*	45
Latin America	10
Total	**100**

* Mainly through global international agencies

Allocations by theme

Theme	Percentage
Natural sciences and technology	25
Social sciences and humanities	20
Health sciences and medical research	20
Environmental sciences and natural resources	35
Total	**100**

Allocations by channel

Channel	Percentage
International research organizations	15
Developing country research and higher education institutions	10
International science, technology and innovation partnerships	55
Developed country research institutions working on developing country problems	20
Total	**100**

Note: International research organizations (United Nations agencies, multilateral and regional development banks), developing country research and higher education institutions (government agencies, research centres, universities), industrial country research institutions (government agencies, research centres, universities), international science, technology and innovation partnerships (involving various combinations of industrial and developing countries, international organizations, foundations, and so on).

Considering your knowledge and experience, your own understanding of the concept of "impact", and taking into account factors such as alternative or complementary sources of support for research and absorption capacity in a given region, theme and type of institution, among other factors, please answer the following questions:

1. Starting from the current level of support for research in each region and using a scale with values –5, –4, –3, –2. –1, 0, +1, +2, +3, +4 and +5, where –5 represents the most negative impact and +5 the most positive impact, what would be the impact on research capacity if the level of financial resources allocated to each region were to be modified as follows:

Region	Reduced to zero	Reduced by 50%	Increased by 50%	Doubled
Africa				
Asia				
Europe and North America				
Latin America				

2. Starting from the current level of support for research in each theme and using a scale with values –5, –4, –3, –2. –1, 0, +1, +2, +3, +4 and +5, where –5 represents the most negative impact and +5 the most positive impact, what would be the impact on research capacity if the level of financial resources allocated to each theme were to be modified as follows:

Theme	Reduced to zero	Reduced by 50%	Increased by 50%	Doubled
Natural sciences and technology				
Social sciences and humanities				
Health sciences and medical research				
Environmental sciences and natural resources				

3. Starting from the current level of support for research in each channel and using a scale with values –5, –4, –3, –2. –1, 0, +1, +2, +3, +4 and +5, where –5 represents the most negative impact and +5 the most positive impact, what would be the impact on research capacity if the level of financial resources allocated to, or provided through, each type of institution were to be modified as follows:

Channel	Reduced to Zero	Reduced by 50%	Increased by 50%	Doubled
International research organizations				
Developing country research and higher education institutions				
International science, technology and innovation partnerships*				
Developed country research institutions working on developing country problems (in general)				
American institutions				
Canadian institutions				
Swedish institutions				
British institutions				
Other European institutions				

4. Considering regions, themes and channels, which of these is more important as a criterion for decision-making when allocating resources (please use 1 for the most important and 3 for the least important):
   a. Region
   b. Theme
   c. Institutional channel

5. Please add below any additional comment or suggestion you may consider relevant. Thank you for your help.

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