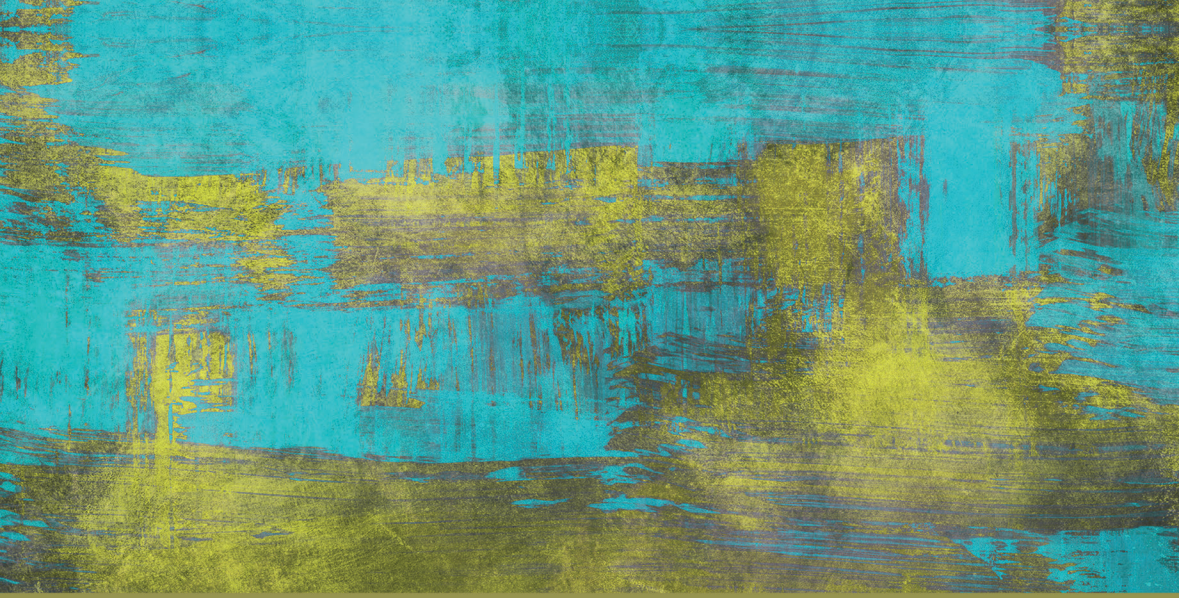
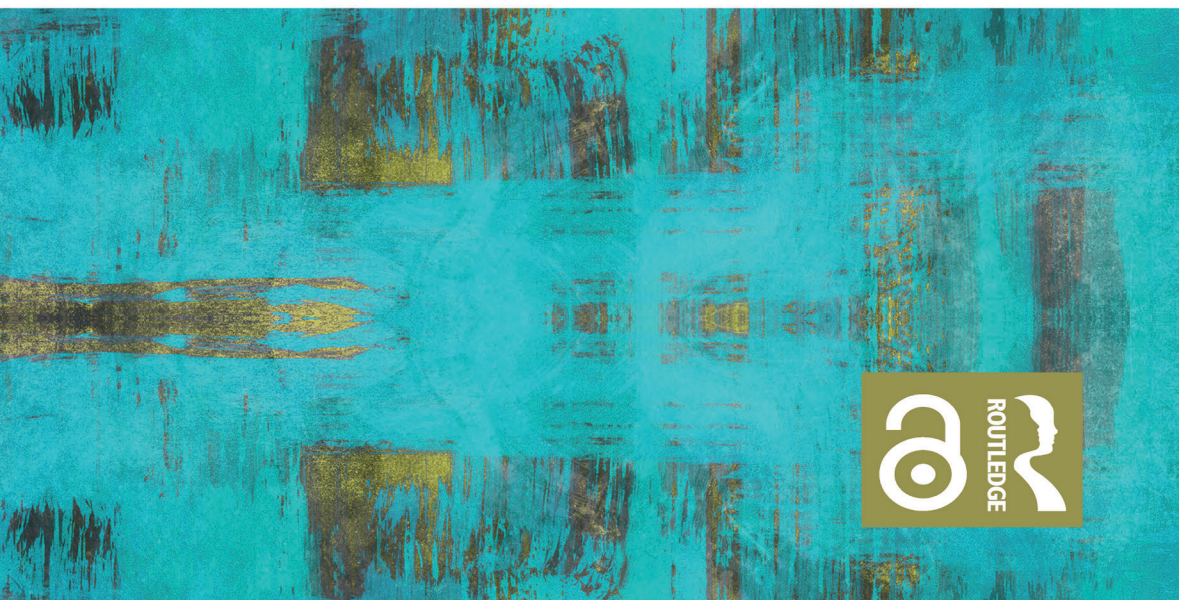


Routledge Explorations in Development Studies

SWEDEN'S RESEARCH AID POLICY

THE ROLE OF SCIENCE IN DEVELOPMENT

Veronica Brodén Gyberg



ROUTLEDGE

Sweden's Research Aid Policy

Science and technology have long been considered key for development, problem solving and education in low-income countries, and Sweden has been at the forefront of efforts in this area, as one of the first countries to formalize research aid.

This book analyses how the Swedish Agency for Research Cooperation with Developing Countries (Sarec) and the Swedish International Development Cooperation Agency (Sida) have worked to promote science in low-income countries. In doing so, the book tackles challenging questions around whose knowledges and capacities count, who sets the research agenda, how knowledge resources are distributed and how complex donor–recipient relationships serve both to address and to inflate these issues. Through a discursive analysis of policy material and interviews with former directors at Sarec and Sida as well as other key persons, the book traces how perceptions of the relationship between research and development have shifted over the last five decades.

Pointing to why long-term collaboration is necessary in order to contribute significantly to capacity building, as well as highlighting more general tensions relating to the production of knowledge, *Sweden's Research Aid Policy: The Role of Science in Development* will be a valuable resource for advanced students and researchers of foreign aid, development cooperation and the history of science and technology.

Veronica Brodén Gyberg is an associate professor at the Department of Thematic Studies: Environmental Change at Linköping University, Sweden.

Routledge Explorations in Development Studies

This Development Studies series features innovative and original research at the regional and global scale. It promotes interdisciplinary scholarly works drawing on a wide spectrum of subject areas, in particular politics, health, economics, rural and urban studies, sociology, environment, anthropology and conflict studies.

Topics of particular interest are globalization; emerging powers; children and youth; cities; education; media and communication; technology development; and climate change.

In terms of theory and method, rather than basing itself on any orthodoxy, the series draws broadly on the tool kit of the social sciences in general, emphasizing comparison, the analysis of the structure and processes and the application of qualitative and quantitative methods.

Global Development in the Arctic
International Cooperation for the Future
Edited by Andrey Mineev, Anatoli Bourmistrov and Frode Mellemvik

Financializations of Development
Global Games and Local Experiments
Edited by Ève Chiapello, Anita Engels and Eduardo Gresse

The Rise of Small-Scale Development Organisations
The Emergence, Positioning and Role of Citizen Aid Actors
Edited by Haane Haaland, Sara Kinsbergen, Lau Schulpen and Hege Wallevik

Banking and Microfinance Institution Partnerships
A Comparative Analysis of Cambodia and Australia
Don Chandima Padmaperuma

Sweden's Research Aid Policy
The Role of Science in Development
Veronica Brodén Gyberg

For more information about this series, please visit: www.routledge.com/Routledge-Explorations-in-Development-Studies/book-series/REDS

Sweden's Research Aid Policy

The Role of Science in Development

Veronica Brodén Gyberg

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2023
by Routledge
4 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
605 Third Avenue, New York, NY 10158

Routledge is an imprint of the Taylor & Francis Group, an informa business

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-0-367-46725-8 (hbk)
ISBN: 978-1-032-50931-0 (pbk)
ISBN: 978-1-003-03327-1 (ebk)

DOI: 10.4324/9781003033271

Typeset in Goudy
by Newgen Publishing UK

Contents

Figures

Acknowledgments

I am thankful for the opportunity to revisit this topic. I would like to thank the interviewees for taking the time to share your reflections and experiences with me. You greatly improved my understanding of research aid and provided many new angles to think about. Thanks to my former supervisors Sven Widmalm, Olle Edqvist and Eva Lövbrand for all the support during my initial work with this study. Both the Unit of Technology and Social Change and the Unit of Environmental Change at the Department of Thematic Studies at Linköping University have supported this work during two different periods. I would also like to thank the kind and engaged staff at Routledge. You have been clear, encouraging, and patient in this process. The reviewers gave great and constructive comments that have helped me improve the text considerably. I am grateful to my previous committee readers, colleagues and friends for all their input. Thanks not least to my loving and supporting family.

1 Science for development

The roots and branches of aid to research

> Developing countries' reliance on import of ready-made technology or research results will not suffice to satisfy basic needs. A pre-requisite for independent development strategies in this direction is a national capacity for research as well as for the development, evaluation and adaptation of technology. Massive resource transfers will only work if developing countries have absorption capacity. The lack of a minimum of national capacity in science and technology severely restricts the possibilities of developing countries to reach their economic and political goals.
>
> (Sarec 1978, pp. 25–26)

Science and technology have long been heralded as key for development in low-income countries,[1] but resources for scientific research in the world remain highly unevenly distributed. A disproportionate amount of the research conducted globally still concerns issues and problems of relevance only to the richest countries in the world, and a majority of development relevant research is conducted by researchers in the global North or international research organizations (UNESCO 2020). Only a fraction of global funding goes to researchers in low-income countries (Fosci et al. 2019; Weiler et al. 2006; Nchinda 2002). Europe and Northern America have on average 3,707 researchers per million inhabitants, compared to 515 per million in Latin America and the Caribbean and 99 in sub-Saharan Africa (UNESCO 2020). In other words, the gap remains wide between high- and low-income countries in terms of both *access* to resources for research and who is *benefited* by the results of research.

This difference in "strength" between research systems in high- and low-income countries is an area that foreign aid actors have targeted in different ways in the period after World War II. Canada and Sweden were pioneers with formalized state-financed research aid since the 1970s. Other donors were also involved in support for higher education and research, but this gained momentum during the 1990s and early 2000s, when large multilateral actors such as the World Bank began underlining the importance of university education and research (Fosci et al. 2019; Hydén 2016; Gadsby 2011; King & McGrath 2004; Watson, Michael & Farley 2003; Fisher & Holland 2003). The policy and practice of aid to research contains contradictions and tensions, however. Research aid policies

DOI: 10.4324/9781003033271-1

may underline the importance of demand-driven and context-sensitive development at the same time as they uphold "Western" science as the universally applicable, objective and modern way to produce new knowledge – the one to be modeled. More locally specific knowledges, knowledge systems and histories of knowledge are rendered less visible. The *form* for development could be considered as already being set, effectively contradicting the ambition of context sensitivity; the aid actor can be a catalytic collaborator, but it can also sustain dependencies (Brodén Gyberg 2012; Carbonnier & Kontinen 2015).

The essence of the "knowledge for development" discourse within foreign aid is that scientific research will enable both economic growth and poverty reduction in low-income countries. The concepts in focus in this discourse have varied over the years, but foreign aid policies have been studded with references to the knowledge society and the importance of science, technology and innovation for economic development, poverty reduction and sustainable development broadly. Attached to this discourse is the assumption that if research systems in low-income countries are not improved, these countries will lag even further behind (richer countries). If opportunities are harnessed, however, leapfrogging to attain faster development is deemed possible (cf. Ericsson 2019). Research (and innovation) are seen essential for tackling global challenges such as climate change and food security. The role of science and research is also highlighted in international agreements such as the 2030 Agenda for Sustainable Development and the Paris Agreement, but the level of concretion has been criticized and there is a relative lack of global governance mechanisms for coordinating "north–south" research cooperation (Cummings et al. 2017; Schwachula 2021).

Science is not free from power: "far from being an objective, ideology-free domain, modern Western science was deeply implicated in the construction of racist ways of thinking of human beings and the differences between them" (Loomba 2005, p. 56). The structural inequalities that arise due to unequal distribution of research capacities leads to underrepresentation in political, economic and cultural activities, affecting whose interests are represented in proposed solutions to political problems, for example (Cozzens et al. 2007). Knowledge systems condition development, directing resources and including and excluding perspectives. Local epistemologies have been ascribed more value, and international environmental regimes increasingly recognize that local, traditional and indigenous knowledges may serve as useful instruments for sustainable development and for connecting with political constituencies on the ground (Jasanoff & Long Martello 2004; cf. Shapin 1998). Discussions about the importance of local knowledge, epistemic injustice and the colonial heritage of Western knowledge production have gained traction, and efforts to decolonize research (and higher education) are being discussed, debated and undertaken both inside and outside academia (de Sousa Santos 2014; Klenk et al. 2017; Alcoff 2017; Walsh & Mignolo 2018, McEwan 2018; Kraemer-Mbula et al. 2020; Anderson 2020; Ludwig et al. 2021). Scholars and policymakers alike call for more transformative and transdisciplinary science where multiple knowledges and voices are acknowledged and included when carving out problem definitions and solutions

in order to create more equitable development (cf. Sillitoe & Marzano 2009; Kaya & Seleti 2013; Carbonnier & Kontinen 2015; Fischer et al. 2019; Nightingale et al. 2019; ISC 2021; Sultana 2022).

Despite these developments, the idea of one-way knowledge transfer from high- to low-income country contexts lives on in the policy and practice of aid (Schwachula 2021). There has been a fragmentation and diversification in the aid actor landscape, and simultaneously a convergence of development priorities globally has led to a streamlining of aid policy, resulting in interventions being centered around similar thematic foci, for example (Jakupec & Kelly 2019: Swiss 2018, 2021). There is an increased emphasis on the national interests of donor countries and aid coordination has been weakened (Gulrajani 2017; Odén & Wohlgemuth 2019). These trends can lead to development interventions that are less locally appropriate (Jakupec & Kelly 2019; Brown 2020). Among research aid actors specifically, a tendency can be observed of donors focusing on supporting research *uptake* and knowledge *use* rather than local research capacity and knowledge production (Nilsson & Sörlin 2017). Research suggests that the opposite is necessary.

Aim of the book

This book explores what we can learn about the relationship between science and politics in the context of foreign aid and is inspired by the question of why states support science in the name of development (Jasanoff & Kim 2009, p. 120). I use the policy history of Swedish research aid to critically explore how the role of research for development in low-income countries is constructed and what this can say about the relationship between science policy and aid policy. Through focusing on a pioneer actor and exploring the past, this book aims to contribute to the critical discussion about how science can contribute to sustainable development today and in the future. The following set of questions guide the analysis:

- How is the role of research for development constructed? How are individual researchers and universities seen to contribute to development? How is the role of the aid actor portrayed?
- What discourses can be identified in the policy development, and how do these relate to each other over time; what kind of futures are imagined?

Using discourse theory along with the concepts of sociotechnical imaginaries and boundary organization, I analyze official policy documents such as annual reports, methods documents, evaluations, government bills, state investigations and parliamentary records. I have also conducted interviews with former directors and other key informants. While support to development-related research activities has also involved several other Swedish state actors and organizations during different periods, focusing on the case of Sarec (later referred to as the research unit at Sida) is warranted since it has been and remains the most central state actor.

My main aim is not to *evaluate* the development of research aid discourse per se, but rather to *explore* and *analyze* it from different perspectives. The book contributes to the understanding of boundary organizations and the development of sociotechnical imaginaries in the shifting discourses of science for development. I trace the evolving understandings of essentially contested concepts like development, knowledge and innovation in relation to aid, constituting useful background for discussions about past, current and future policy both in Sweden and elsewhere (cf. Nowotny 2004).

Background: research and aid

This section lays out a background story about how the political fields of research and foreign aid develop and meet in both theory and practice, mainly in the period post-WWII. A brief account of the development and general trends within research and foreign aid provides a useful background against which to understand the Swedish empirical case. Here it is appropriate to point out that the main empirical material that I have analyzed in this book sometimes includes quite explicit reflections about theory, concerning for example development and research or knowledge production. These reflections and references mirror political trends and schools of thought in academia during the decades in question (both dominant and challenging trends). Therefore, I discuss them in this section as background rather than under theoretical perspectives or previous research. It is a way to contextualize the empirical material and inform my discourse analysis. Details pertaining to each specific decade will be discussed in the framings of the empirical chapter – the discussion here will be of a more general character.

Knowledge and specifically scientific research are considered central driving forces in the modern world, and universities are therefore seen as important actors (cf. Shapin 2008; Stehr 2018; Carvalho 2021). In addition to providing higher education and conducting research, universities are also expected to more directly stimulate national economic growth and development through cooperating with other public and private actors. *Developmental universities* is one of the concepts that reflect these demands, although it is not a new concept (cf. Coleman 1986); *entrepreneurial universities* is another (cf. Brundenius et al. 2009; Carvalho 2021). There are, however, different opinions regarding how universities affect a country's social and economic development, and there are studies that suggest universities often lack the capacity to live up to all these demands (cf. Mowery & Sampat 2005; Göransson et al. 2009).

The world of higher education and research has gone through many changes in the period after WWII. The end of the 20th century saw a considerable acceleration in the internationalization of education and research; the number of universities has grown, the number of students enrolled in higher education worldwide has more than doubled in the last 20 years and regional collaboration has grown (cf. UNESCO & IESALC 2020; Frank & Meyer 2007; Hydén 2016; Atela et al. 2021). Explanations for this include the end of the Cold War, the spread of new information and communication technologies (ICTs),

and economic globalization (King & McGrath 2004). The amount of spending on education, research and development (R&D) worldwide has also increased greatly. UNESCO statistics, for example, show that global investment in R&D (including the business sector) increased by 44% between 2002 and 2007, but the share of GDP spent on research activities differs greatly – with an average of 2.5% being spent in North America and Western Europe compared to 0.4% for sub-Saharan Africa, for example (UNESCO 2004, 2009, 2020). Gender equality has slowly improved. On average, one-third of the researchers in the world are women, ranging from 45% in Latin America and the Caribbean to 38% in Northern Africa and Western Asia, 34% in North America and Europe, 31% in sub-Saharan Africa and 24% in Eastern and Southeastern Asia (UNESCO 2020).

While international scientific *collaboration* has also grown significantly, geography matters and the benefits for low-income countries remain relatively small in terms of, for example, the number of scientific paper publications and their subsequent impact as measured through citations (Olechnicka et al. 2020; Wagner & Leydesdorff 2005; Worldmapper 2022a). Analyses of global publishing patterns suggest that science systems in low- and middle-income countries are publishing more and increasing their absorptive capacities, but frontier scientific knowledge generation is still largely dominated by high-income countries (Radosevic & Yoruk 2014). The increase in papers between 2005 and 2015, for example, was primarily found where the existing scientific research was already relatively strong (Worldmapper 2022b). Furthermore, many publications based on research carried out in low-income countries do not include authors from the countries in question (Guebas et al. 2003; Boshoff 2009). Comparing the number of published papers per region is of course just one way of measuring scientific activity, and there are positive trends under way for a number of low-income countries. Although the development varies between countries, the number of researchers in low-income countries went from 1.8 to 2.6 million (a 45% increase) between 2002 and 2007, for example, compared to an 8.6% increase of researchers in high-income countries (UNESCO 2009). It is difficult to acquire correct statistics on donor spending on higher education and research due to variations in classifications and definitions (Hydén 2016).

The idea that research is important for development seems relatively unquestioned by aid actors, though there *is* discussion about which challenges are the most pressing and what methods are adequate to address them. Discussions about development – including universities – often seem to be framed more or less explicitly by *gap questions* or deficit narratives; "what is missing (in x country or organization for instance)?" in comparison with high-income countries. When discussing the distribution of research capacity in the world for example, one UN report concludes the following:

> the knowledge divide is deep and is heavily tilted in favor of developed countries. Developing countries suffer from a lack of both financial and human resources in R&D. They need to improve their capacity to produce knowledge domestically and absorb the knowledge produced elsewhere. This can

> happen when allocation of financial resources to R&D activities increases, human resources are trained in adequate numbers and an institutional framework to carry out R&D activities is created. … There is a need for reviving and strengthening the university system in developing countries to strengthen their research capacities.
>
> (Sanyal & Varghese 2007, p. 2)

The questions appear in different shapes and forms – but they concern gaps that need to be filled to promote progress of some kind. Similar questions are also asked in high-income countries, the difference being that they are often perceived as already at the top of the development ladder – or at least further ahead in the "race" when compared to low-income countries. One might ask whether it is possible for low-income countries to ever "catch up" as long as the premises are that gaps need to be filled in relation to specific *stages* of development (cf. Møller Madsen & Adriansen 2020; Whyte & Whyte 2016). Either way, improving research capacities is envisioned as one way of enabling this catch-up. The terminology *developed* versus *developing* remains central and simplifications are common in aid policy, although other concepts are now used as well, such as global North and South, or low-, middle-, and high-income countries.

Science, (technology) and innovation

Awareness and opinion concerning the risks and potentially *negative* effects of science and technology have grown. Efforts by governments, industry, and other organizations (including aid actors) to manage, regulate, and steer knowledge have increased, illustrated for example by the proliferation of science and technology policies, knowledge policies and research policies (Bocking 2004; Benner 2008; Tyfield et al. 2017). In the decades after World War II, these efforts were mainly a high-income country phenomenon, but in the 1970s low-income countries became more critical of high-income country policies and started prioritizing science and technology development as one of the paths to achieve self-reliance (Shinn et al. 1997). Changes also include an expansion of the so-called *third mission* (cf. Laredo 2007) of universities along with theories that prescribe increased cooperation between universities, the state and industry, such as some of the models described earlier.

The linear model of innovation is considered one of the first developed frameworks for analyzing how science and technology related to the economy. It is often associated with *Science – The Endless Frontier* (1945) by Vannevar Bush (director of the US Office of Scientific Research and Development), but the origin of the framework is not clear (Godin 2006; Edgerton 2004). According to Godin (2006), it was constructed by industrialists, consultants and business schools, and supported by economists. Edgerton (2004) opposes attempts to give the model more "historical agency" than it deserves, but the model has nevertheless affected science policy significantly (Hounsell 2004). The general idea was that innovation occurs through a linear process beginning with basic research,

followed by applied research and development, to then end with production and diffusion. The linear model remains alive alongside newer conceptualizations even though it has been criticized and declared dead countless times (Godin 2006; Benner 2011).

Alternatives to the linear model are often characterized as more *systemic* in the sense that they include more actors and processes and account for links between them in a more flexible way. Three alternative models that have been proposed to explain how science and technology relate to the economy are: the model national systems of innovation (cf. Freeman 1987; Lundvall 1992; Nelson 1993; Edquist 1997), the model of an emerging "Mode 2" of the production of scientific knowledge (Gibbons et al. 1994) and the model of a Triple Helix of university–industry–government relations (Etzkowitz & Leydesdorff 2000). As Godin (2017, p. 8) argues, "A model rarely comes from a single individual, however important this person is as a scholar or public figure. Models have history". Similar ideas have been voiced previously (cf. Kraemer-Mbula et al. 2020; Freeman 1995), but the three models/theories above gained much traction in the 1990s and early 2000s. They differ concerning, for example, focus/purpose, analytical use and scope. They also identify and prioritize actors and their interrelations differently, but they take as a point of departure the idea that knowledge production and innovation follow a non-linear dynamic and require collaboration between many actors in a system. Universities and scientific research are seen as essential, but collaboration between actors in a system (mainly academia, industry and government but also other actors like civil society groups and NGOs) is seen to increase a country or region's innovative abilities.

Ziman distinguishes between academic science and *post-academic* science (Mode 2 being a form of post-academic science), where the latter, guided by more entrepreneurial norms, is expected to "shed some of the doctrines of 'modernism'". In particular, it will not claim to be able to produce a universally applicable answer to every problem (Ziman 1996). Ziman envisioned Robert K. Merton's traditional CUDOS norms (communalism, universalism, disinterestedness, originality and skepticism) as being replaced by PLACE (property, local, authoritarian, commissioned and expert) (Ziman 2000). Modes 1 and 2 are portrayed as two different modes of knowledge production (one old and one new) (Shinn 2002). Mode 1 science tends to be disciplinary in orientation, more oriented towards basic sciences and relatively homogenous in its organizational structures. Research problems are usually formulated in the academic context. Mode 2, in contrast, is characterized by transdisciplinarity, applicability and usefulness. Research problems are defined within the context that they are relevant to, and there is great diversity when it comes to the organizational structures that support the research (universities are just one such place; industry, think tanks and different kinds of research centers are others) (Melander 2006). National innovation systems, for example, have actively been exported, "transferred" or strengthened in low-income country contexts by and together with high-income country actors. Innovation systems are often framed as being able to solve all kinds of development problems – innovation, economic growth and poverty

reduction go hand in hand, in this view. According to Pfotenhauer and Jasanoff (2017), while the analytical roots of innovation are universalist, there has been a broader practice-oriented turn in innovation policy that is characterized by more pluralism in terms of configuration of actors, emphasizing locally co-produced problem definitions and solutions.

Shinn compares and discusses Mode 1/Mode 2 (Shinn 2002) and Triple Helix. In Mode 1, he maintains, the links between academia and society (including industry) are said to be few, and the university is relatively free and self-defined. In Mode 2 (which is said to have gained in strength since the end of World War II), the modern university is collapsing in a sense. Peer control over research priorities is eroded, and disciplines are increasingly replaced by problem-oriented, interdisciplinary science in short-term taskforce expert teams. Shinn states that in contrast to this, Triple Helix claims historical continuity; that relations between university, industry and government have always existed and continue to do so. What has been added is a layer of "knowledge development", in which groups from all three sectors collaborate on certain problems that arise (ibid.). Shinn is critical of the claims of both views and maintains that both fail to account for the fact that universities are still situated in national contexts, for example, claiming instead that both tendencies coexist simultaneously. Similar criticism is delivered by Godin in a review of *The New Production of Knowledge*, in which he maintains that Mode 1 never really existed in pure form and Mode 2 is not exactly taking over, either (Godin 1998). Mirowski and Sent (2008) agree, stating that the stage 1/stage 2 narrative is superficial and does not mirror the history of science particularly well. Universities have always "served society" in many ways, and academic freedom has never been as free as is sometimes claimed (Mirowski & Sent 2008).

None of the researchers referred to above seem to deny that there are significant changes going on in the relationship between science and the rest of society but are instead pointing out that they are often discussed in a simplified manner. The alternative terms and models (such as the ones discussed earlier) to discuss the "new" situation are equally reductionist and simplifying in that they focus on such a small part of the science–society landscape, according Elzinga (2004a & 2004b). In a similar line of argument, Jamison et al. maintain that the role of technology is also simplified within the innovation-oriented discussions:

> the storyline of innovation has come to provide the dominant way in which technology is discussed. … The ways in which these stories are told follows a typical pattern, which can be characterized as a form of technological determinism, according to which new, radical innovations – in our day, primarily in information technologies, genetic engineering, and nanotechnology – are claimed to be the central factors behind economic growth and "competitiveness".
>
> (Jamison et al. 2010, p. 19)

As mentioned previously, the idea of innovation systems started out as an alternative way to account for the role of technology in economic growth. Jamison

et al. (2010) maintain that the focus on innovation to a large degree has come to focus on *certain* sciences and technologies, and that it is a kind of technological determinism. In relation to research and research aid, it becomes significant not least because it might entail that technological sciences are prioritized at the expense of, for example, social sciences and the humanities. This is a problem if one assumes that scientific diversity is important. According to Sismondo, technology is often conceived of as applied science (in the kind of linear line of argumentation discussed earlier). STS research, however, suggests that reality is more pragmatic: "Scientists" invent, and "inventors" do scientific research – whatever is necessary to move their program forward" (Sismondo 2010, p. 95). Both science and technology are situated and complex; they are constantly under negotiation and construction, and scientific knowledge is one of many different kinds of knowledge required in the development of technology, just like technology is often used in the process of producing scientific knowledge (Sismondo 2010; cf. Edgerton 2017).

Foreign aid in the post-war period

As with the case of higher education and research, many changes have occurred in the theory, policy and practice of aid and development since WWII. Public foreign aid prior to World War II was primarily provided in the form of humanitarian relief or investments as part of colonial relations (Lancaster 2006). In the post-war period, the reasons for engaging in aid were diversified, the UN was formed, the rate of decolonization increased and more attention was paid to problems of low-income countries (cf. Overton & Murray 2021). A speech by former US president Harry Truman from 1949 (his second inaugural address) about the importance of counteracting underdevelopment in the world is often referred to as influential for Western aid policies to follow. These policies adhered to the modernistic catch-up ideas, and high-income countries had to provide aid not only for the benefit of the low-income countries but because of the security threats that underdevelopment posed (Odén 2006). Imperial geopolitics and the remnants of colonial administration continued to affect post-war aid relations (cf. Pharo & Fraser 2008). The US was the dominant economic and military power in the period after WWII and was highly influential, for example in the creation of the IMF, the World Bank and the OECD. France and Great Britain were also major donors (UNESCO 2009).

Aid can be provided for a number of reasons, official and unofficial. Altruism and solidarity are common explicit motivations, but it can also be for economic benefit, for diplomatic reasons and/or to maintain stability and security through different kinds of presence and influence (cf. Overton & Murray 2021). There may be commercial or military interests as well. Continued influence in former colonies has also been a motive, like in the case of France, where aid flows up until the 1990s clearly followed this kind of pattern. The aid from Scandinavian countries has been among the highest per capita over time and has often been associated with motives based on solidarity, although this picture has been

discussed and debated and will be discussed more in the next chapter (cf. Brodin 2000; Odén & Wohlgemuth 2013; Elgström & Delputte 2017; Berg et al. 2021).

There are numerous kinds and definitions of aid with various associated actors modalities and approaches that vary with time and different regimes of aid in an uneven geography of aid flows (Overton & Murray 2021; Willis 2021). There is multilateral, bilateral and humanitarian aid, for example, and there are multiple donor kinds and constellations such as the OECD-DAC, the growing group of newer "non-DAC" donors, philanthropies/private donors, multilateral agencies and NGOs. The donor landscape is diversifying, and although global inequalities remain strong, new geographies of development have emerged both within and between countries, challenging the usefulness of categories such as developed versus developing (Horner & Hulme 2017). According to Overton and Murray (2021), there have been four regimes of aid in the post-war period: modernization (1945–1980), neoliberalism (1980–2000), neostructuralism (2000–2010) and retroliberalism (since 2010). Aid patterns, priorities and modalities vary depending on different political ideologies and economic and geopolitical developments during the decades in question.

Aid strategies during the regime of modernization were characterized by a period of decolonization; the role of the state was considered central and there was a strong belief in the ability of industrialization, science and technology to tackle poverty (ibid.). During the regime of neoliberalism, which started during the 1980s, aid budgets were reduced and neoliberal reforms were pursued, including deregulation and privatization. In the face of recession and debt, the market became more central and the state's role was diminished. Conditionalities abounded in aid, and structural adjustment programs were implemented. Low-income countries were to blame for failed development. Due to critique of the effects aid politics pursued in the decades prior, the first decade of the new millennium was characterized by a neostructuralist regime where a "third way" between socialism and capitalism was pursued. State regulation was pursued alongside the market mechanisms, through for example public–private partnerships. Universal solutions were criticized, broader development indicators were developed and poverty reduction strategies replaced structural adjustment programs. Lack of development was blamed on ineffective aid.

According to Overton and Murray (2021), a regime of retroliberalism has been in place since 2010, springing from the aftermath of the global financial crisis in 2007–2008. It appears to be characterized by a less clear development theory, reminiscent of the modernistic period but simultaneously focused on capital accumulation. According to Jakupec and Kelly (2019), the hitherto Western-dominated international aid system has been contested by new donors, populist movements and de-globalization. Issues of geopolitical security have become central, and while the regime is pro-business and trade liberal, it also includes protectionist and nationalistic policies. Aid budgets remain relatively intact, but parts of these have also been used for costs traditionally not included in aid (such as refugee-related expenses in donor countries, peacekeeping and business subsidies). The self-interests of donor countries have become more central; aid and

donor coordination has eroded. At the same time, shared prosperity has become more common in development discourse, as has sustainable economic growth (Overton & Murray 2021).

With the exception of the poorest countries (where dependence on aid remains high), the amount of official foreign aid per year is smaller when compared to other financial flows in and out of low-income countries, such as foreign direct investment (FDI), short-term loans and private income transfers (cf. Odén & Wohlgemuth 2019; Overton & Murray 2021). Aid activities and their effects cannot just be measured in financial terms, however. What this money does, how and with what intentions and preconditions is of significance. Aid can have both intended and unintended consequences. Depending on whether the support is provided to governments or to civil society actors, for example, different aspects of society are strengthened.

Development theory

"Development is a struggle of the shape of futures, a dramatic and complex struggle" (Nederveen Pieterse 2010, p. xviii). Which futures and paths are imagined, by whom and what alternatives exist? Nederveen Pieterse maintains that development is a field in constant flux – a "high energy field" with challenges and setbacks together with successes and advances. Development theories are often grand theories about progress, and they can be seen as ideologies that depend heavily on political tides, or as an academic social science subject. A combination of both views is more *contextual*; development theory is influenced by both political processes and intellectual academic work. Development can, according to this approach, be defined as "the organized intervention in collective affairs according to a standard of improvement" (ibid., p. 3).

Development thinking is problem-driven rather than theory-driven, maintains Nederveen Pieterse, something that makes it "street smart" but also makes it rank "fairly low on the totem pole of social science" (ibid., p. 3). Development theory, he claims, is underestimated because it reflects a neo-colonial division of labor in the production of knowledge. The meanings and definitions of development have varied over time, with different emphasis placed, for example, on the roles of industrialization, privatization, resource management, human capacities and states (cf. ibid., p. 7). Theories of development include neoclassical theory, modernization, structuralism, dependency, human development and post-development.

With the exception of dependency theory, alternative development and human development thinking, the theories have been largely produced in the "West". Ideas about development are historically contingent, and each theory consists of many layers that should be taken into account when trying to understand them, for example its historical and political context, what it aims to explain and how and how it imagines futures. They offer different problem descriptions as well as different solutions. A central idea in modernization theory, for instance, is it is a given that there is a *set* and universal order to developments, largely

irrespective of local contexts. For example, the notion that agricultural societies will develop into industrial societies given certain set preconditions (economic ones, mainly), and that countries needed to pass through one stage in order to get to the next one (cf. Rostow 1959). Alternative views on development like the structural school dependency theory (cf. Prebisch 1950; Baran 1957) have in a variety of ways emphasized context-dependence (development paths do not have to follow the same stages) and global systems of interdependence where power and resource inequalities condition the potential development paths of low-income countries.

Actual development, though, "involves continuous traffic back and forth across the spectrum" of different views (Nederveen Pieterse 2010, p. 189). Understandings of development today are more multidimensional than in the past. Both "hard" aspects like infrastructure, capital and technology and "soft" aspects such as institutions, processes, education and knowledge are considered important. "Western" or "Northern" perspectives to a greater degree than before exist alongside perspectives from the "South" and "East". There has been a convergence of sorts regarding the major perspectives on development, according to Pieterse, a growing reflexivity about both modernity and development and the available paths can now be found across the board (cf. Gulrajani 2022). This has not always been the case; the ideas above have explicitly clashed against one another in different ways during the period covered in this book.

An example of recent consensus among development policymakers as well as researchers is that in order for knowledge and technology to be adequate and relevant in any given context, its development and/or application needs to be driven by endogenous processes (cf. Howitt 2004). In other words, critique of excessively *donor-driven* approaches has been strong. According to Appadurai, this kind of critique was not as common in the heyday of modernization theories:

> In an earlier, more confident epoch in the history of social science – notably in the 1950s and 1960s during the zenith of modernization theory – such epistemological diffidence would have been quickly dismissed, since that was a period when there was a more secure sense of the social in the relationship between theory, method, and scholarly location. Theory and method were seen as naturally metropolitan, modern, and Western. The rest of the world was seen in the idiom of cases, events, examples, and test sites in relation to this stable location for the production or revision of theory. Most varieties of Marxist theory, though sharply critical of the capitalist project behind modernization theory, nevertheless were equally "realist," both in their picture of the architecture of the world system and in their understanding of the relationship between theory and cases. Thus much excellent work in the Marxist tradition had no special interest in problems of voice, perspective, or location in the study of global capitalism. In short, a muscular objectivism united much social science in the three decades after World War II, whatever the politics of the practitioners.
>
> (Appadurai 2000, p. 4)

As shall be shown, the changing ideas about development are visible in the policy development of Swedish research aid. Although different development actors – such as large international organizations, states or NGOs – have different perspectives and policy preferences, "seen up close, each position itself is a cluster of positions and an arena of different views" (Nederveen-Pieterse 2010, p. 188). It is to be expected, in other words, that a variety of theoretical perspectives exist simultaneously in aid actors' policies, for example.

The battle between linearity and plurality in development discourse

There are many buzzwords that represent different views and relations to concepts of development (cf. Cornwall 2007; Biccum 2005), and the terminology used in the development field has changed over time. Concepts that became common after the decolonization process were *modernization*, *industrialization*, *development* and *third world* (cf. Shinn et al. 1997). Though all these concepts are still in use, there has also been a shift from *technology transfer* to *development cooperation* and *capacity building*, underlining partnership to a greater degree (cf. Whyte 2004; Dahl 2001). Although the policy rhetoric has become more focused on cooperation and joint capacity development (instead of knowledge and technology *transfer*), high-income country-determined priorities nonetheless seem to have continued to dominate the agenda (King 2004). Similar criticism has been raised by Eriksson Baaz (2005), who maintains that the need to create more equal relationships in development aid has been expressed in various ways using concepts like ownership, participation and empowerment, but that research has shown that this proves difficult in practice. The focus still largely remains on *gaps*, implying that "modernization" or "linear" thinking continues to exist alongside more pluralistic ideas.

Some scholars argue that both the modernization- and dependency-oriented theories were blind to the significance of local knowledge (Sillitoe & Marzano 2009). An illustration of the continued adherence to linear thinking can be seen in the following quote from a UNESCO report on the topic of the *knowledge divide*. The authors essentially argue that development in high-income countries can and will occur in the same way in low-income countries given the right circumstances:

> The experience of developed countries shows that the private sector investment in R&D increases when the research environment and facilities improve in the country. Therefore, the initial investments to strengthen research capacity in developing countries have to come from public sources.
> (Sanyal & Varghese 2007, p. 2)

The "new" positively loaded discourse of partnership, capacity building and poverty reduction can also serve to maintain old power relations by new means (cf. Ogbu 2006). While formal colonialism has been replaced by other relations, Merson argues:

> the shift from colonial to postcolonial science has meant very little in terms of the capacity to use the tools of research to shape economic development. Most newly decolonized states invested heavily in education, and especially in the training of scientists and technicians. However, their reliance on import substitution schemes for the transfer of industrial technology provided few opportunities for local technicians to innovate in the application of science. … globalization has created a situation in which, despite the rhetoric of national sovereignty, most developing countries remain in a condition of dependency.
>
> (Merson 2000, pp. 283–284)

In a similar vein, STS researcher Kumju Hwang re-enacts the colonialist discourse of center and periphery (cf. Schott 1998; Traweek 1988):

> the means of re-enactment have not been direct violence and political force but the interactions between scientific actors and communities' self-referential systems, infrastructures, reputations, recognition, nationalities, political and scientific heritage, and so forth. The re-enactment of colonialist discourse contains the fundamental notion that sociocultural elements … predetermine the status of an individual scientist or engineer, or an individual institution that stands in the core or periphery in the hierarchical structure of international relations.
>
> (Hwang 2008, pp. 104–105)

Core–periphery relationships have shaped the practices and identities of science and researchers, Hwang ague. The center (which during the 20th century was the US and Western Europe) has stronger capacity and attracts both students and scientists from all over the world. Hwang argues that due to this global inequality, peripheral science is often associated with low production of knowledge, adapting knowledge from elsewhere to local context. Despite the end of formal colonialism – and despite a more diversified development map – high-income countries have to a large degree continued to influence and/or dominate many areas through pervasive economic and technological systems. Open science has contributed to the diversification of cholarly communication (Khanna et al 2022), but countries with high levels of resources and capacity have the upper hand through for example economic, scientific, and technological means instead of having direct political or geographic control (cf. Loomba 2005; Shaobo 1997; Harding 2008; McEwan 2009; Møller Madsen & Adrianssen 2020). Universities can be powerful engines of anticipation, argues Facer (2018), but history shows that their role as anticipatory resource has to a large degree served colonial, state building and commercial interests (cf. Ndofirepi & Gwaravanda 2018), and in order to be a greater societal resource, more participatory, ethically aware and accountable orientations are required.

Historically, there has been a relative lack of dialogue between development studies and critical schools, such as science and technology studies, postcolonial and feminist approaches, due to their different origins and goals, but dialogues have increased in recent decades (Harding 2011; McEwan 2009, 2018; Strongman 2014; Sabaratnam 2020; Anderson 2020).

Research and aid coming together

Direct research cooperation between universities in high-income and low-income countries is not a new phenomenon, and international aid actors have also long worked to harness the benefits of science and technology for development. Organizations like the UN and the World Bank are important to address here given that their policies strongly influence other aid actors. The UN, for example, has worked with issues of research for development in different forms since its inception by, among other things, organizing global conferences on the topic. The first conference was in Geneva in 1963 – "UN Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas" (UNCSAT) (Jolly 2004). The intention of the conference was to discuss the need for low-income countries to build their own science and technology capabilities. Only 16% of the near 1700 delegates were from low-income countries. Though this first UN conference of its kind was considered a failure due to the lack of concrete policy results, it lifted the importance of science and technology policy firmly onto the development agenda (Standke 1997). It resulted, among other things, in the establishment of the Advisory Committee on the Application of Science and Technology to Development (ACAST).

The World Bank has also given attention to these issues for several decades, though primary and secondary education were given higher priority until the 1990s (Taskforce on Higher Education and Society 2000), when there was a significant upsurge of knowledge-related activities in relation to higher education and research (cf. World Bank 1994, 1999, 2002; Wagner et al. 2001). Previously, contributing to low-income country knowledge production capacity had not been a high priority since knowledge could be transferred/imported from aid organizations or other countries instead (cf. Sida 2006). The World Bank and UNESCO have collaborated on issues related to higher education and research in low-income countries for decades, but studies suggest that UNESCO's influence has diminished (cf. Halvorsen 2016). This, according to Halvorsen (2016), has entailed less emphasis on aspects such as the role of scientific knowledge for democracy, systems- and capacities-oriented views, national leadership and the centrality of national public interests. Instead, the role of research for economic (global) development is underlined, STEM-subjects are valued above others and less attention is given to the strengthening of the academic profession (ibid.).

Research as part of *national* foreign aid efforts appeared in a few different forms during the 1950s and 1960s and added another type of actor into the

equation – high-income country development agencies with goals pertaining to development and poverty reduction. The basis for cooperation is different compared to when international research partnerships are established between universities without the added explicit goal of contributing to each other's research capacity or producing results of direct development relevance. The number of high-income country aid agencies and international development organizations[2] involved in supporting higher education and research in low-income countries has increased since the beginning of the 1970s (Gaillard 1990), but especially since the middle of the 1990s. At the end of the 1990s, there were at least 49 such research aid actors of larger size (Young & Kannemeyer 2001). Among the top bilateral research aid donors were the Netherlands (Nuffic), Canada (IDRC) and Sweden (Sida). With the goal to reduce the "research gap", aid actors provide various types of support to improve the *research capacity* of low-income countries. In recent decades, aid-related support to research capacity building has reduced (Sida 2017; UNCTAD 2007).

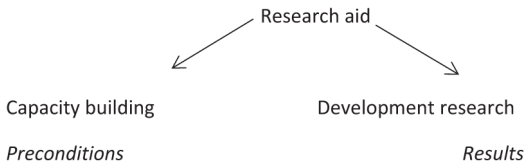
This focus on creating links between research and development policy has revived a number of old questions in new ways; how should research be related to policymaking, what should the role of public funding be in capacity building and the production of knowledge and how are research capacities effectively strengthened (Fisher & Holland 2003)? Discussing this same attempt to bridge theory and practice, Court and Maxwell maintain that the policy debate on these issues is often too transnational in nature; "the typical developing country debate is much influenced by the international zeitgeist, as represented by World Bank or UN reports" (Court & Maxwell 2005, p. 717). This will be discussed in more detail in the chapter on previous research, but several critics maintain that North–South research partnerships have been – and continue to be – dominated by Northern agendas and that effects on development are questionable (cf. Menon & Nair 2002).

This book focuses more on the *policy discourse* of research aid than on the organization per se, yet a glimpse into what different research aid actors do is a relevant background to have in order to understand the Swedish case.

International organizations, philanthropies, the EU and national aid actors differ greatly in methods and goals pertaining to research for development. Some work with clear capacity building goals; others conduct and/or fund development research and others do both. Support to *development research* and support to *building research capacity* are related in many cases but have slightly different goals. Development research is research that has more or less direct relevance to the solving of problems facing low-income countries, but it is not necessarily only conducted there – certain research on agricultural or medical technologies, for example. When the goal is to contribute to the building of research *capacity* in low-income countries, however, the research process itself and its surrounding prerequisite conditions are the priority. The main goal might be to contribute to an increased number of doctoral graduates or to assist in research policy management. The specific *areas* of research involved and

their development relevance are certainly not irrelevant but are of secondary importance.

The rationales for supporting higher education and research differ between donors, some focusing on individual scholars, others on institutions, and many use multiple approaches (Hydén 2016). The support from research aid actors may consist of activities such as scholarships to donor country institutions; split research training programs for low-income country students to attain MScs and PhDs; the financing of infrastructure (such as labs and ICT); assistance with national and/or local education and research policies; support to research networks between low-income countries and direct research project funding. Most of these activities occur with varying levels of collaboration with high-income country universities – regardless of whether the focus is on (individual or institutional) capacity building or development research.



The level of research aid actor that I am focusing on in this book is the *national aid agency* level. National aid agencies comprise a different type of research aid actor that to a higher degree than other actors focuses on contributing to building research capacity in low-income countries. The long-term goal with their activities is to contribute to development (for example economic growth and/or poverty reduction). The research aid strategies of different country agencies have many components in common and can encompass:

- supporting specific research projects in low-income countries in bilateral cooperation with universities in donor high-income countries
- assisting with, or creating, training programs for researchers (carried out in high-income countries, low-income countries or both)
- supporting the building of important infrastructure (such as ICTs, administration systems or labs)
- supporting the development of national, regional and international research networks
- directly financing research for development and poverty reduction (in high-income countries, low-income countries or both)

Some place larger emphasis on scholarships, training programs or infrastructure, while others focus more on policy level efforts and others do all of the above. Cooperation with other actors in industry and civil society may be encouraged or demanded.

There are several definitions of research capacity,[3] but they all more or less have in common a systemic perspective, situating the researcher as an individual

in their larger context with specific preconditions to different levels, locally, nationally and internationally. Although the definitions can be considered similar, the strategies and activities undertaken by different donors vary considerably. Furthermore, although donor countries organize research aid differently in terms of which ministries and agencies are responsible, operations tend to straddle two distinct political fields – (education and) research and foreign affairs. Policy coherence can be a challenge since the actors involved need to cater to separate and sometimes incompatible goals and norms (Brodén Gyberg 2016; Schwachula 2021; Carbonnier & Kontinen 2015).

The first national development agency to tackle the issue of research capacity was the International Development Research Centre (IDRC) in Canada 1970. Sweden was next in line as one of the pioneers with a national aid agency dedicated to research; Sarec was formed in 1975. Sweden had already supported research as a part of aid efforts on a smaller scale since the 1950s, but the formation of Sarec represented a shift in how the role of research in development was perceived. Its task was to work specifically to support development research and contribute to building research capacity in low-income countries.

Disposition

Before I delve into the empirical analysis, I set the scene further with a chapter outlining previous research, theory and methodology. After this, five chapters covering 1973 to 2020 follow. The book ties up with a chapter containing concluding reflections.

Notes

1 Unless I specifically refer to the terms used in the empirical material, I will mostly use the terminology low-, middle-, and high-income countries, while recognizing that what constitutes development is a matter of definition and certainly not only tied to income. Sometimes I use the global South and the global North. The empirical material uses different terms during different decades, such as developing versus developed, or Third World countries. Partner countries is another way that the policy documents refer to the countries that they collaborate with.

2 Aid agencies and similar organizations engaging in research for development in some way will sometimes collectively be referred to as research aid actors. I will use research aid as a term that encompasses all activities that aim to improve the research capacity of low-income countries – whether it is on individual, organizational or policy levels.

3 In addition to research capacity, there are several concepts and terms that are central: science, technology, research capacity or development, for example. Some of these have been partly defined in this chapter, and others will be discussed in the coming chapters. The most relevant definitions of central concepts given my purpose, however, are the ones provided by the empirical material; hence, I analyze how the different materials over time relate to and define central concepts. The study is a discourse analysis of ideas within Swedish research aid, and hence attempting to provide some sort of standard definitions a priori is not as relevant as comparing the ones that develop

over time in the material. These definitions can then in turn be contrasted to previous research, for instance, but I do not provide any "closed" definitions.

References

Alcoff, L.M. (2017). Philosophy and philosophical practice: Eurocentrism as an epistemology of ignorance. In Kidd, I.J., Medina, J., & Pohlhaus Jr., G. (eds) *The Routledge handbook of epistemic injustice*. Routledge. doi.org/10.4324/9781315212043

Anderson, W. (2020). Decolonizing histories in theory and practice: an introduction. *History and Theory*, 59(3), pp. 369–375. doi.org/10.1111/hith.12164

Appadurai, A. (2000). Grassroots globalization and the research imagination. *Public Culture*, 12(1), pp. 1–19.

Atela, J., Ndege, N., Marshall, F., Chataway, J., Frost, A., Ciarli, T., Confraria, H., Dolley, J., & Shee, A. (2021). Applying a transformative knowledge systems perspective to gain new insights for STI policy. In Hanlin, R., Demeke Tigabu, A., & Scheikheldin, G. (eds) *Building science systems in Africa: conceptual foundations and empirical considerations*. Mkuki na Nyota & African Centre for Technology Studies.

Baran, P. (1957). The Political Economy of Growth. Monthly Review Press.

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Benner, M. (2011). In search of excellence? an international perspective on governance of university research. In Göransson, B., & Brundenius, C. (eds) *Universities in transition: the changing role and challenges for academic institutions*. International Development Research Centre (IDRC).

Berg, A., Lundberg, U., & Tydén, M. (2021). *En svindlande uppgift. Sverige och biståndet 1945–1975*. Ordfront.

Biccum, R. (2005). Development and the "new" imperialism: a reinvention of colonial discourse in DFID promotional literature. *Third World Quarterly*, 26(6), pp. 1005–1020.

Bocking, N. (2004). *Nature's experts: science, politics, and the environment*. Rutgers University Press.

Boshoff, N. (2009). Neo-colonialism and research collaboration in Central Africa. *Scientometrics*, 81(413), pp. 413–434.

Brodén, V. (2012). Aiding research capacity for development: tensions and dilemmas. *International Journal of Contemporary Sociology*, 49(1), pp. 117–144.

Brodén Gyberg, V. (2016). Utvecklingens forskningspolitik: Sveriges forskningsbiståndspolicy 1973–2008. In Tunlid, A. & Widmalm, S. (eds) Det forskningspolitiska laboratoriet: Förväntningar på vetenskapen 1900–2010. Nordic Academic Press.

Brodin, A. (2000). *Getting politics right: democracy promotion as a new conflict issue in foreign aid policy*. Doctoral thesis, University of Gothenburg.

Brown, S. (2020). The rise and fall of the aid effectiveness norm. *The European Journal of Development Research*, 32, pp. 1230–1248**.**

Brundenius, C. et al. (2009). The role of universities in innovation systems in developing countries: developmental university systems – empirical, analytical and normative perspectives. In Lundvall, B.Å, Joseph, K. J., & Chaminade, C.E. (eds) *Handbook of innovation systems and developing countries: building domestic capabilities in a global setting*. Edward Elgar Publishing.

Carbonnier, G., & Kontinen, T. (2015). Institutional learning in north–south research partnerships. *Revue Tiers Monde*, 221, pp. 149–162. Armand Colin.

Carvalho, T. (2021). The transformation of universities in response to the imperatives of a knowledge society. In Arrevaara, T., Finkelstein, M., Jones, G.M., & Jung, J. (eds) *Universities in the knowledge society*. The Changing Academy – The Changing Academic Profession in International Comparative Perspective 22. doi.org/10.1007/978-3-030-76579-8_2

Coleman, J.S. (1986). The idea of the developmental university. *Minerva*, 24(4), pp. 476–494.

Cornwall, A. (2007). Buzzwords and fuzzwords: deconstructing development discourse. *Development in Practice* 17(4–5), pp. 471–484.

Court, J., & Maxwell, S. (2005). Policy entrepreneurship for bridging poverty reduction: bridging research and policy in international development. *Journal of International Development*, 17(6), pp. 713–725. doi.org/10.1002/jid.1234

Cozzens, S.E., Hagendijk, R., Healey, P., Martin, J., & Santos Pereira, T. (2007). *A framework for analyzing science, technology and inequalities: preliminary observations*. James Martin Institute working paper 3.

Cummings, S., Regeer, B., de Haan, L., Zweekhorst, M., & Bunders, J. (2017). Critical discourse analysis of perspectives on knowledge and the knowledge society within the Sustainable Development Goals. *Development Policy Review*, 36(6), pp. 727–742. doi.org/10.1111/dpr.12296

Dahl, G. (2001). *Responsibility and partnership in Swedish aid discourse*. Nordiska Afrikainstitutet.

de Sousa Santos, B. (2014). *Epistemologies of the south: justice against epistemicide*. Routledge. doi.org/10.4324/9781315634876

Edgerton, D. (2004). The "linear model" did not exist: reflections on the history and historiography of science and research in industry in the twentieth century. In Grandin, K. Wormbs, N., & Widmalm, S. (eds) *The science–industry nexus: history, policy, implications*. Science History Publications/USA & The Nobel Foundation.

Edgerton, D. (2017). The political economy of science: prospects and retrospects. In Tyfield, D., Lave, R., Randalls, S., & Thorpe, C. (eds) *The Routledge handbook of the political economy of science*. Routledge. doi.org/10.4324/9781315685397

Edquist, C. (1997) Systems of innovation approaches: their emergence and characteristics. In Edquist, C. (ed) *Systems of innovation: technologies, institutions and organizations*. Routledge.

Elgström, O., & Delputte, S. (2017). An end to Nordic exceptionalism? Europeanisation and Nordic development policies. In Carbone, M., & Orbie, J. (eds) *The Europeanisation of development policy*. Routledge. doi.org/10.4324/9781315174280

Elzinga, A. (2004a). The new production of reductionism in models relating to research policy. In Grandin, K. Wormbs, N., & Widmalm, S. (eds) *The science–industry nexus: history, policy, implications*. Science History Publications/USA & The Nobel Foundation.

Elzinga, A. (2004b). Metaphors, models and reification in science and technology policy discourse. *Science as Culture*, 13(1), pp. 105–121.

Ericsson, F. (2019). *Connecting ODA and STI for inclusive development: measurement challenges from a DAC perspective*. OECD DCD/DAC(38).

Eriksson Baaz, M. (2005). *The paternalism of partnership*. Zed Books.

Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from national systems and "mode 2" to a triple helix of university–industry–government relations. *Research Policy*, 29(2), pp. 109–123.

Facer, K. (2018). The university as engine for anticipation: stewardship, modelling, experimentation and critique in public. In Poli, R. (ed.) *Handbook of anticipation: theoretical*

and applied aspects of the use of future in decision making. Springer International Publishing AG. doi.org/10.1007/978-3-319-31737-3_29-1

Fischer, K., Giertta, F., & Hajdu, F. (2019). Carbon-binding biomass or a diversity of useful trees? (Counter)topographies of carbon forestry in Uganda. *Environment and Planning E: Nature and Space*, 2(1), pp. 178–199. doi.org/10.1177/2514848618823598

Fisher, E., & Holland, J.D. (2003*)*. Social development as knowledge building: research as a sphere of policy influence. *Journal of International Development*, 15(7), pp. 911–924. doi.org/10.1002/jid.1043

Fosci, M., Loffreda, L, Velten, L., & Johnson, R. (2019). *Research capacity strengthening in LMICs*. Rapid Evidence Assessment Prepared for DFID. DFID.

Frank D.J., & Meyer, J.W. (2007). University expansion and the knowledge society. *Theory and Society*, 36(4), pp. 287–311.

Freeman, C. (1987). *Technology policy and economic performance: lessons from Japan*. Frances Pinter.

Freeman, C. (1995). The "national system of innovation" in historical perspective. *Cambridge Journal of Economics*, 19(1), pp. 5–24.

Gadsby, E.W. (2011). Research capacity strengthening: donor approaches to improving and assessing its impact in low- and middle-income countries. *International Journal of Health Planning Management*, 26, pp. 89–106. http://doi.org/10.1002/hpm.1031

Gaillard, J. (1990). Science in the developing world: foreign aid and national policies at a crossroad. *Ambio*, 19, pp. 348–353.

Gibbons, M. et al. (1994). *The new production of knowledge: the dynamics of science and research in contemporary societies*. SAGE Publications.

Godin, B. (1998). Writing performative history: the new new Atlantis? *Social Studies of Science*, 28(3), pp. 465–483.

Godin, B. (2006). The linear model of innovation: the historical construction of an analytical framework. *Science Technology and Human Values*, 31(6), pp. 639–667. doi.org/10.1177/0162243906291865

Godin, B. (2017). *Models of innovation: the history of an idea*. The MIT Press.

Göransson, B., Maharajh, R., & Schmoch, U. (2009). Introduction: New challenges for universities beyond education and research. Science and Public Policy, 36(2). doi.org/10.3152/030234209X406872

Guebas, F. et al. (2003). Neo-colonial science by the most industrialised upon the least developed countries in peer-reviewed publishing. *Scientometrics*, 56(3), pp. 329–34.

Gulrajani, N. (2017). Bilateral donors and the age of the national interest: what prospects for challenge by development agencies? *World Development*, 96, pp. 375–389.

Gulrajani, N. (2022). Development narratives in a post-aid era. Reflections on implications for the global effectiveness agenda. *WIDER working paper 2022/149*. United Nations University, UNU-WIDER. doi.org/10.35188/UNU-WIDER/2022/282-9

Halvorsen, T. (2016). Higher education in developing countries: peril and promise, a decade and a half later: development lost? *International Journal of African Higher Education*, 3(1). doi.org/10.6017/ijahe.v3i1.9638

Harding, S. (2008). *Sciences from below – feminisms, postcolonialisms, and modernities*. Duke University Press. doi.org/10.1215/9780822381181

Harding, S. (2011). *The postcolonial science and technology studies reader*. Duke University Press. doi.org/10.1215/9780822393849

Horner, R., & Hulme, D. (2017). From international to global development: new geographies of 21st century development. *Development and Change*, 50(2), pp. 347–378 doi.org/10.1111/dech.12379

Hounsell, D.A. (2004). Industry research: the science–industry nexus: history, policy, implications. In Grandin, K. Wormbs, N., & Widmalm, S. (eds) *The science–industry nexus: history, policy, implications*. Science History Publications/USA & The Nobel Foundation.

Howitt, P. (2004). *Endogenous growth, productivity and economic policy: a progress report*. International Productivity Monitor, pp. 3–15.

Hwang, K. (2008). International collaboration in multilayered center-periphery in the globalization of science and technology. Science Technology Human Values, 33(1). doi.org/10.1177/0162243907306196

Hydén, G. (2016). The role and impact of funding agencies on higher education and research for development. In Halvorsen, T., & Nossum, J. (eds) *North–South knowledge networks: towards equitable collaboration between academics, donors and universities*. African Minds.

ISC (2021). *Science and society in transition: ISC action plan 2022–2024*. International Science Council.

Jakupec, V., & Kelly, M. (2019). *Foreign aid in the age of populism: political economy analysis from Washington to Beijing*. Routledge.

Jamison, A., Hyldgaard Christensen S., & Botin, L. (2010). *A hybrid imagination: science and technology in cultural perspective*. Morgan & Claypool.

Jasanoff, S., & Kim, S.H. (2009). Containing the atom: sociotechnical imaginaries and nuclear power in the United States and South Korea. *Minerva*, 47(2): 119–146.

Jasanoff, S., & Long Martello, M. (2004). *Earthly politics*. The MIT Press.

Jolly, R. et al. (2004). *UN contributions to development thinking and practice*. Indiana University Press.

Kaya, H.O., & Seleti, Y.T. (2013). African indigenous knowledge systems and relevance of higher education in South Africa. *The International Education Journal: Comparative Perspectives*, 12(1), p. 30–44.

Khanna, S., Ball, J., Alperin, J. P., & Willinsky, J. (2022). Recalibrating the scope of scholarly publishing: A modest step in a vast decolonization process. *QuantitativeScience Studies*, 3(4), pp. 912–930. doi.org/10.1162/qss_a_00228

King, K. (2004). *Development knowledge and the global policy agenda: whose knowledge? Whose policy?* Occasional paper. UNRISD.

King, K., & McGrath, S. (2004). *Knowledge for development? comparing British, Japanese, Swedish and World Bank aid*. Zed Books Ltd.

Klenk, N., Fiume, A., Meehan, K., & Gibbes, C. (2017). Local knowledge in climate adaptation research: moving knowledge frameworks from extraction to co-production. *WIREs Climate Change*, 8(5), e475. doi.org/10.1002/wcc.475

Kraemer-Mbula, E., Tijssen, R., Wallace, M.L., & McLean, R. (eds) (2020) *Transforming research excellence: new ideas from the global South*. African Minds Publishing. doi.org/10.5281/zenodo.3603819

Lancaster, C. (2006). *Foreign aid: diplomacy, development, domestic politics*. University of Chicago Press.

Laredo (2007). Revisiting the third mission of universities: toward a renewed categorization of university activities? *Higher Education Policy*, 20, pp. 441–456.

Loomba, A. (2005). *Colonialism/Postcolonialism*. Routledge.

Ludwig, D., Koskinen, I., Mncube, Z. Poliseli, L., & Reyes-Galindo, L. (2021). *Global epistemologies and philosophies of science*. Routledge.

Lundvall, B-Å. (ed.) (1992). *National systems of innovation. towards a theory of innovation and interactive learning*. Pinter Publishers.

McEwan, C. (2009). *Postcolonialism and development*. Routledge.
McEwan, C. (2018). *Postcolonialism, decoloniality and development*. Routledge. doi.org/10.4324/9781315178363
Melander, F. (2006). *Lokal forskningspolitik. Institutionell dynamik och organisatorisk omvandling vid Lunds universitet 1980–2005*. Lund University.
Merson, J. (2000). *Bio-prospecting or bio-piracy: intellectual property rights and biodiversity in a colonial and postcolonial context*. *Osiris*, 15, pp. 282–296.
Mirowski, P., & Sent E.M. (2008). The commercialization of science and the response of STS. In Hackett, E. et al. (eds) *Handbook of science and technology studies* (3rd edition). The MIT Press.
Møller Madsen, L., & Adriansen, H.K. (2020). Transnational research capacity building: whose standards count? *Critical African Studies*, 13(1), pp. 49–55. doi.org/10.1080/21681392.2020.1724807
Mowery, D.C., & Sampat, B.N. (2005). Universities in national innovation systems. In Fagerberg, J, Mowery, D. C., & Nelson, R.E. (eds) *The Oxford handbook of innovation*. Oxford University Press.
Nchinda, T.C. (2002). Research capacity strengthening in the South. *Social Science and Medicine*, 54(11), pp. 1699–1711. doi.org/10.1016/S0277-9536(01)00338-0
Nederveen Pieterse, J. (2010). *Development theory: deconstructions/reconstructions* (2nd edition). SAGE Publications. doi.org/10.4135/978144627908
Nederveen Pieterse, J. (2011). Discourse analysis in international development studies. *Journal of Multicultural Discourses*, 6(3), pp. 237–240.
Nelson, R.R. (ed.) (1993). National innovation systems: *a* comparative *a*nalysis. Oxford University Press.
Nightingale, A.J., Eriksen, S., Taylor, M., Forsyth, T., Pelling, M., Newsham, A., Boyd, E., Brown, K., Harvey, B., Jones, L., Bezner Kerr, R., Mehta, L., Naess, L.O., Ockwell, D., Scoones, I. Tanner, T., & Whitfield, S. (2019). Beyond technical fixes: climate solutions and the great derangement. *Climate and Development*, 12(4), pp 343–352. doi.org/10.1080/17565529.2019.1624495
Nilsson, D., & Sörlin, S. (2017). *Research aid revisited – a historically grounded analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA). Sweden.
Nowotny, H. (2004). Does history of science have policy implications? In Grandin, K. Wormbs, N., & Widmalm, S. (eds) *The science–industry nexus: history, policy, implications*. Science History Publications/USA & The Nobel Foundation.
Odén, B. (2006). *Biståndets idéhistoria: från Marshallhjälp till millenniemål*. Lund, Studentlitteratur.
Odén, B., & L. Wohlgemuth (2013). *Swedish development cooperation policy in an international perspective*. School of Global Studies. University of Gothenburg.
Odén, B., & L. Wohlgemuth (2019). *Swedish development cooperation policy: trends, lessons learned, and directions for the future*. Policy report, Global Utmaning.
Ogbu, O. (2006). The demand for policy research in Africa. In Box, L., & Engelhard, R.E. (eds) *Science and technology policy for development: dialogues at the interface*. Anthem Press.
Olechnicka, A., Ploszaj, A., & Celińska-Janowicz, D. (2020). *The geography of scientific collaboration*. Routledge Advances in Regional Economics, Science and Policy. Routledge.
Overton, J., & Murray, W.E. (2021). *Aid and development*. Routledge. doi.org/10.4324/9780367814755

Pfotenhauer, S., & Jasanoff, S. (2017). Traveling imaginaries: the "practice turn" in innovation policy and the global circulation of innovation models. In Tyfield, D., Lave, R., Randalls, S., & Thorpe, C. (eds) *The Routledge handbook of the political economy of science*. Routledge. doi.org/10.4324/9781315685397

Pharo, H. & Fraser, M.P. (2008). The aid rush: aid regimes in northern Europe during the Cold War. Oslo Academic Press.

Philip Ndofirepi, A.P., & Gwaravanda, E.T. (2018). Epistemic (in)justice in African universities: a perspective of the politics of knowledge. *Educational Review*, 71(5), pp. 581–594. doi.org/10.1080/00131911.2018.1459477

Prebisch, R. (1950). The economic development of Latin America, and its principal problems. Economic Commission for Latin America. United Nations Department of Economic Affairs.

Radosevic, S., & Yoruk, E. (2014). Are there global shifts in the world science base? Analysing the catching up and falling behind of world regions. *Scientometrics* (101), pp. 1897–1924. doi.org/10.1007/s11192-014-1344-1

Rostow, W. (1959). The stages of economic growth. *The Economic History Review*, *New Series*, 12(1), pp. 1–16.

Sabaratnam, M. (2020). Postcolonial and decolonial approaches. In Baylis, J., Smith, S., & Owens. P. (eds) *The Globalization of World Politics*. Oxford University Press.

Sanyal, B.C., & Varghese, N.V. (2007). *Research capacity of the higher education sector in developing countries*. International Institute for Educational Planning, UNESCO.

Sarec. (1979). *Sarec's second year*. Annual Report 1977/1978.

Schwachula, A. (2021) Transnational science cooperation for sustainable development. In Chaturvedi, S. et al. (eds) *The Palgrave handbook of development cooperation for achieving the 2030 agenda*. doi.org/10.1007/978-3-030-57938-8_4

Shaobo, X. (1997). *Rethinking the problem of postcolonialism*. *New Literary History*, 28(1), pp. 7–19.

Shapin, S. (1998). Placing the view from nowhere: historical and sociological problems in the location of science. *Transactions*, 23(1), pp. 5–12.

Shapin, S. (2008). Science and the modern word. In Hackett, E. et al. (eds) *Handbook of science and technology studies* (3rd edition). The MIT Press.

Shinn, T. (2002). The Triple Helix and new production of knowledge: prepackaged, thinking on science and technology. *Social Studies of Science*, 32(4), pp. 599–614.

Shinn, T., Spaapen, J., & Krishna, V. (eds) (1997). *Science and technology in a developing world*. Kluwer Academic Publishers.

Sillitoe, P., & Marzano, M. (2009). Future of indigenous knowledge research in development. *Futures*, 41, pp. 13–33.

Sismondo, S. (2010). *An introduction to science and technology studies* (2nd edition). Wiley-Blackwell.

Standke, K.H. (1997). *Overview of past multilateral conferences on science and technology in the UN system*. Prepared for the Third Meeting of the Steering Committee of the International Scientific Advisory Board of UNESCO.

Stehr, N. (2018). The economic structure of knowledge societies. In Adolf, M. T. (ed.) *Nico Stehr: pioneer in the theory of society and knowledge*. Springer.

Strongman, L. (2014). Postcolonialism and international development studies: a dialectical exchange? *Third World Quarterly*, 35(8), 1343–1354. doi.org/10.1080/01436597.2014.946248

Sultana, F. (2022). The unbearable heaviness of climate coloniality. *Political Geography*, 99. doi.org/10.1016/j.polgeo.2022.102638

Swiss, L (2018). *The globalization of foreign aid: developing consensus*. Routledge. doi.org/10.4324/9780203704042

Swiss, L. (2021). The globalisation of foreign aid: global influences and the diffusion of aid priorities. In Arrevaara, T., Finkelstein, M., Jones, G.M., & Jung, J. (eds) *Universities in the knowledge society*. The Changing Academy – The Changing Academic Profession in International Comparative Perspective 22. doi.org/10.1007/978-3-030-76579-8_2

The Taskforce on Higher Education and Society (2000). *Higher education in developing countries – peril and promise*. World Bank. doi.org/10.1596/0-8213-4630-X

Traweek, S. (1988). *Beamtimes and lifetimes: the world of high energy physicists*. Harvard University Press

Tyfield, D., Lave, R. Randalls, S. & Thorpe, C. (eds) (2017). *The Routledge handbook of the political economy of science*. Routledge. doi.org/10.4324/9781315685397

UNCTAD (2007). The least developed countries report 2007. UNCTAD/LDC/2007. https://unctad.org/system/files/official-document/ldc2007_en.pdf

UNESCO (2004). A decade of investment in research and development (R&F): 1990–2000. *UIS Bulletin on Science and Technology Statistics*, 1(4). UNESCO Institute for Statistics.

UNESCO (2009). *A global perspective on research and development*. UIS Fact Sheet No. 2-09. UNESCO Institute for Statistics.

UNESCO (2020). *New UIS data for SDG 9.5 on research and development (R&D)*. http://uis.unesco.org/en/news/new-uis-data-sdg-9-5-research-and-development-rd [accessed January 17, 2022].

UNESCO & IESALC (2020). *Towards universal access to higher education: international trends*. https://unesdoc.unesco.org/ark:/48223/pf0000375686.locale=en [accessed August 24, 2022].

Wagner, C.S. (2001) *Science and technology collaboration: building capacity in developing countries?* Prepared for the World Bank. RAND Science and Technology.

Wagner, C.S., & Leydesdorff, L. (2005). Network structure, self-organization, and the growth of international collaboration in science. *Research Policy*, 34(10), pp. 1608–1618. doi.org/10.1016/j.respol.2005.08.002

Walsh, C.E., & Mignolo, W.D. (2018) *On decoloniality: concepts, analytics, praxis*. Duke University Press. doi.org/10.1215/9780822371779

Watson, R. Michael, C., & Farley, S. (2003). *Strategic approaches to science and technology in development*. Policy research working paper 3026. World Bank.

Weiler, H.N., Guri-Rosenblit, S., & Sawyerr, A. (2006). *Universities as centres of research and knowledge creation: an endangered species?* Summary report from Colloquium on Research and Higher Education. UNESCO.

Whyte, A. (2004). *Landscape analysis of donor trends in international development: human and institutional capacity building*. The Rockefeller Foundation.

Whyte, M., & Whyte, S.R. (2016). Dilemmas of knowledge production in Ugandan universities. In Adriansen, H.K., Møller Madsen, L., & Jensen, S. (eds) *Higher Education and capacity building in Africa: the geography and power of knowledge under changing conditions*. Routledge. doi.org/10.4324/9781315734620

Willis, K. (2021). *Theories and practices of development* (3rd edition). Routledge. doi.org/10.4324/9781315559469

World Bank (1994). *Higher education: lessons for experience*. doi.org/10.1596/0-8213-2745-3

World Bank (1999). *World development report 1998/1999: knowledge for development*. Oxford University Press. http://hdl.handle.net/10986/5981

Worldmapper (2022a). Map: science papers published 2016. https://worldmapper.org/maps/science-paperspublished-2016/?sf_action=get_data&sf_data=results&_sft_product_cat=science&sf_paged=2 [accessed January 14, 2022].

Worldmapper (2022b). Map: science growth 2005–2015. https://worldmapper.org/maps/science-growth-2005to2015/?sf_action=get_data&sf_data=results&_sft_product_cat=science&sf_paged=2 [accessed January 14, 2022].

Young, J., & Kannemeyer, N. (2001) *Building capacity in southern research: a study to map existing initiatives*. Overseas Development Institute (ODI).

Ziman, J. (1996). Post-academic science: constructing knowledge with networks and norms. *Science Studies*, 9(1), pp. 67–80.

Ziman, J (2000). *Real science: what it is and what it means*. Cambridge University Press.

2 Research aid

Mutually beneficial cooperation or neo-colonial science?

> It is easy to understand criticism which says that it is an issue of the decision makers' power and values – not a lack of knowledge and reasonable thinking – which causes the large global injustice, poverty and the skewed, preventable diseasedness. … Why else do at least six million children under the age of five die annually despite the fact that there are scientifically proven interventions that can prevent most of the deaths (respiratory diseases, diarrhoea, measles, malaria and infections during infancy)? … I come to think of Sven Lindqvist's book, *Terra Nullius*, that I read about a year ago. It was about the rich countries' debt in relation to the colonial conquest of the current poor parts of the world and how we repress both the memory of this as well as our remnant colonial ideas. … Already as children we share the prey and continue throughout our lives to live well on it. Those from whom it has been taken, for example banana plantation workers, have to sweat in hunger strikes under plastic sheeting while their kids eat what we leave at the restaurants and the workers themselves get sick from the pesticides that make our bananas cheaper. … In Sarec's 20-year anthology, social anthropologist Gudrun Dahl and historian Birgitta Odén describe the relationship between knowledge and Sweden's road from poverty to prosperity. … The authors conclude by maintaining that the extreme inequality existing between rich and poor countries risks making scientific knowledge acquire a much larger argumentational value than the locally acquired, practical knowledges of farmers, fishermen, workers and many others. This can be prevented but in order for this to happen, a more active, self-critical and epistemologically aware research which focuses on its own foundations and has the ability to search for insights in a frequently diffuse practical experience that does not provide prestige.
>
> (Thörn 2008, pp. 191–192)

Åke Thörn worked as a physician and researcher in Nicaragua for several years as part of Sarec-financed efforts to contribute to capacity building within healthcare research. The book referred to above is not primarily academically oriented, but it is nonetheless very relevant in this context. Thörn expresses frustration with the fact that known solutions to problems of development and health are not applied to the extent that they could be. It is also a plea for recognition of the existence of a variety of important knowledges; scientific knowledge is not the only valid

DOI: 10.4324/9781003033271-2

path to understanding our surroundings. The quote is an illustration of the complexities involved in the practice of research aid.

The literature on research aid is found in various different disciplines, under different names and with different concepts and empirical materials in focus. It can, for example, be about university collaboration, capacity building in research, research cooperation, North–South or South–South research collaboration, science, technology and innovation or research and technology for development. The phenomenon of research aid is studied in several fields such as economics, development studies, political science, management, science and technology studies, environmental science, health sciences and agricultural sciences. The studies also cover different aspects of research aid such as theoretical underpinnings, support modalities, specific actors or geographical regions. My ambition here has been to span this diverse literature to capture knowledge of relevance to understanding the theory and practice of research aid. I draw mainly on scientific publications but also some grey literature. Although the chapter covers broad ground, the overview is of course not exhaustive – there has been a great deal published on these topics of late.

A glimpse into the debate on foreign aid in general is a good place to start in order to understand the context of the Swedish case. I will then account for some of the studies that have investigated research aid – both internationally and in the case of Sweden specifically.

Questioning aid effectiveness

Although it can be debated how measurable aid effectiveness is (cf. Fejerskov 2016; Engel 2014), the discussion about what constitutes good aid has been constant in the post-WWII period and has flared up particularly intensely during different periods, such as in the 1990s (cf. Hansen & Tarp 2000). Prior to the 1990s, a lack of results was often attributed to low-income country governments, but gradually the effectiveness debate increasingly pointed out the role of donors in failures (cf. Overton & Murray 2021). This can be exemplified by Birdsall's (2008) "seven deadly sins" committed by donors: impatience (with institution building); envy (collusion and coordination failure); ignorance (failure to evaluate); pride (failure to exit); sloth (pretending participation is sufficient for ownership); greed (unreliable as well as stingy transfers); and foolishness (underfunding of global and regional public goods) (Birdsall 2008, p. 516). In a study of disaster risk reduction (DRR) initiatives in Southern Africa, Hagelsteen et al. (2021) show that the effectiveness and sustainability of capacity building efforts can be undermined by a number of failures such as power imbalances, lack of local ownership and short-term focus in planning and implementation.

The debate resulted in the *Paris Agenda on Aid Effectiveness and the Accra Agenda for Action* in 2005 and 2008, which called for a change in how donors worked, relating for example to increasing low-income country ownership, improving

donor alignment to local systems and achieving better donor coordination (Brown 2020). The agendas' principles were widely embraced but implementation on the ground faced challenges (cf. Odén & Wohlgemuth 2011). In addition to the two initiatives above, the *Busan Partnership for Effective Cooperation* and the *Global Partnership for Effective Development Cooperation* came in 2011. According to Mawdsley et al. (2014), this contributed to putting economic growth and the role of the private sector back in the center of development thinking. Brown (2020) argued that the combination of a changing aid architecture (traditional donors were joined by an increase in non-OECD donors and non-state actors, for example) and the shift from focus on aid to development effectiveness reduced the momentum and relevance of the aid effectiveness agenda's intentions (Brown 2020). Although the *Addis Ababa Action Agenda* from 2015 also underscored the importance of commitments to aid effectiveness, the incentives for compliance appear too weak, and progress seems to have occurred mostly when it comes to transparency, not donor coordination or alignment with country priorities, for example (Ogbuoji & Yamey 2019; Brown 2020).

The answers to whether or not aid "works" differ depending on which kinds of programs and donors are analyzed, what time periods are studied, and not least, how one defines and measures *development* (cf. Wako 2017). Is development economic growth, poverty reduction, both or something else? How does one measure development? Development is often equated with economic growth, but does economic growth necessarily lead to poverty reduction? Nevertheless, since economic growth is so often discussed in conjunction with aid, a glimpse into what has been said about the links is an interesting place to start. It is even more interesting when debating the question "do economists make markets?", as McKenzie et al. (2007) do in their anthology on the performativity of economic theory:

> To speak at a high level of generality about the "effects" of economics on economies is a dangerous short-cut. Are those effects direct? Of what kind are they? Economics (both in the broad sense of the wide variety of specialties and technical forms of knowledge deployed in markets and also in the narrower sense of the academic discipline) can relate to and act upon its objects in many ways: by observing them, by measuring them, by predicting them, by providing theories to explain them or instruments to regulate them, by spreading some functional technique about them (or just some suggestive vocabulary to deal with them), buy designing them in a laboratory, by inventing them, and so on. And, symmetrically, the "object" of economics (the many economic entities that are taken into account by economics) can react to this science in many ways: by mimicking it, by using it for profit, by believing it (and possibly by funding it!), by inadvertently operating it, but also by fighting it, by undermining its validity, and so on. Such interactions can change how resources are produced, organized, exchanged and consumed.
>
> (McKenzie et al. 2007)

In other words, economics is not just a matter of objectively observing and describing reality. Ideas about how the economy works are significant in constructing that very economy.

Back to the debate on aid efficiency. Ardnt et al. (2015) argue that aid has contributed to both economic growth and social development, based on an analysis of 40 years of aid. At the same time, there appears to be no conclusive evidence to support the idea that increased economic growth (measured in BNP) leads to poverty reduction or more equitable distribution of resources in a country, and the connections between foreign aid and growth have also been difficult to prove (cf. Svensson 2001; Milovich 2018). Burnside and Dollar (2004) claim that robust and high-quality institutions and policies are a prerequisite for aid to contribute to economic growth. Aid, however, is sometimes focused on building stronger institutions and policies, aiming for poverty reduction rather than economic growth. Irrespective of the inconclusive state of evidence, flows of foreign aid are in practice also determined by strategic and political considerations; hence, the effectiveness of aid needs to be measured by a broader set of indicators (cf. Svensson 2001; Radelet et al. 2004).

This is a contested subject, with studies highlighting different factors, periods and actors, but aid seems to be able to work well even in countries with so-called unfavorable policy environments (cf. Loots 2006; Hansen & Tarp 2000; Ardnt et al. 2015). Radelet et al. (2004) distinguish between humanitarian, early impact (more likely to have effect within a four-year period, such as infrastructure, budget support and industry investments) and late-impact aid (such as environmental protection, democratic reform or education). Late-impact aid is of the kind that might impact growth, but likely in an indirect way and over longer periods of time.

What the verdict is on the link between aid and development clearly has to do with what definition of development one has and what factors that are taken into account – why and how. There are many both explicit and implicit reasons for engaging in aid, and what might seem economically sound may not be politically sound. The bearing of these findings on my own study is that it helps place research aid in a wider context. Research aid, according to the preceding discussion, generally fits under in the category *late-impact aid*, which is deemed likely to contribute to growth, but in an indirect way and over a long period of time. Research aid is nonetheless considered to be able to have faster impacts as well, something that I will return to further on in this chapter.

What is known about research aid?

What kind of research leads to development – and what kind of development? The consensus seems to be that links between research capacity and poverty reduction do exist, but that they are more often considered indirect than direct (cf. Banzon Bautista et al. 2001; Weiler et al. 2006). There is no conclusive evidence that increased capacity in science and technology in low-income countries will significantly contribute to economic growth, for example, but since this has

been the case in high-income countries, the conclusion seems to be that one could reasonably expect a similar development in low-income countries. A World Bank report from 2001 states: "Despite the lack of a theoretical or quantitative link between science and technology investment and development in developing or underdeveloped countries, many policymakers assume that benefits will accrue from such investments" (Wagner et al. 2001, p. 9).

This issue is often tied to a discussion about what the role of universities is in society and the economy, and *how* knowledge is produced and disseminated (as was discussed in the first chapter; linear versus systemic theories about knowledge production). These ideas about how science works or *should* work have clear effects on research policies and those that study them as well (cf. Velho 2004; Menon & Nair 2002).

The outputs of North–South research partnerships are not limited to co-authored papers in journals. Research aid has contributed to increasing the number of trained scholars and improved research infrastructure, capacity building, networks and policy development (Bradley 2007; Hydén 2016). Studies consistently show, however, that high-income country partners continue to benefit the most, despite the fact that the issue of how to make research cooperation more equal and beneficial to low-income countries has been discussed for decades (Bradley 2007; Salager-Meyer 2008; Upreti et al. 2012).[1] While there seems to be discursive consensus among aid actors concerning the importance of equal partnerships, the practice often does not match (Carbonnier & Kontinen 2015). Asymmetry between collaborating countries constitutes the main problem: an asymmetry expressed for example by unequal salaries, unequal access to information and training or control over choice of partners, research agendas and project administration (Menon & Nair 2002; Bradley 2007; Zink 2018). Furthermore, the time for – and scope of – collaboration often does not suffice for establishing broader institutional capacity building (Carbonnier & Kontinen 2015). There are also tensions between capacity building goals and development relevance, on the one hand, and goals related to academic excellence and scientific quality, on the other (cf. Kraemer-Mbula et al. 2020).

Following up on some of the general findings above, I will now discuss some of the main tensions in research aid in more detail.

Conflicting goals and agendas

There has been a trend among research aid actors of moving away from aid to individual projects and focus on specific academic areas to *broader* support for institutional development more clearly based on specific low-income country contexts and priorities, including increased focus on development relevance and impact (van Audenhove 1998). This shift, suggests van Audenhove, was initiated by research aid agencies in Canada, the Netherlands, Norway and Sweden in the late 1980s and early 1990s and reflected an ambition to find more appropriate models for cooperation in recognition of the fact that academic cooperation alone cannot build research capacity. The shift also created some dilemmas, he

argues, since both academic and development cooperation (aimed at building research capacity) tend to be pursued within the same program, but the universities involved are often better equipped for academic cooperation than they are for development cooperation (van Audenhove 1998). Some studies suggest that it might be a better solution to pursue capacity building and research separately, since it may be too much for one partnership to do both (Carbonnier & Kontinen 2015).

This can be related to the discussion about the difference between conducting development-relevant research versus contributing to building research capacity in low-income countries. Universities, aid agencies, private sector actors and governments have different views on what research activities should be prioritized. Given the many changes that universities have undergone during the last few decades, these views have become even more diverse. To what extent does the increased focus on cooperation with private sector actors affect the autonomy of research, for example? Industry has become a more significant financial actor of research globally, resulting in trends where knowledge is treated increasingly as a commodity that in turn jeopardizes the public good of research (Altbach 2007; Altbach & Knight 2007; Halvorsen 2016; Tyfield et al. 2017). Krishna et al. (2002) argue that economic globalization – in the shape of for example increased presence of multinational enterprise (including the establishment of industrial R&D), and higher FDI has influenced science structures in low-income countries. They argue that the presence of business actors in combination with the relatively low levels of national funding for research in low-income countries is contributing, among other things, to a type of internal brain drain and a change from "science as public good" to "science as market good" (Krishna et al. 2002, pp. 211–213). Brundenius et al. (2009) raise similar concerns, maintaining that it is a challenge for universities that globalization processes push them to become more and more active internationally at the same time as they are expected to contribute more to development in their national contexts.

Aid-financed collaboration is an essential source of funding for many low-income country universities, and the issue of inequality is the basis for a majority of the tensions. Efforts on the part of high-income countries to collaborate and cooperate with low-income countries to achieve development and poverty reduction can be questioned given the inequalities at hand. Arriving at national or local priorities is not always a straightforward process (cf. van de Sande 2006), but when research priorities are attached to the "Northern" partner's agenda rather than the "Southern" partner's, it risks creating "research orphans" (Carbonnier & Kontinen 2015, p. 155). The complexity of this issue is further exemplified by Bradley:

> Advocates of North–South research partnerships suggest that they are efficient, intellectually enriching, and conducive to capacity building. Yet veterans of North–South research partnerships attest to a more complex reality, shaped first and foremost by the fact that partnering is often the only way for Southern researchers to access funding. The agenda-setting process represents

> a formidable obstacle for many development research partnerships. The literature on North–South research cooperation often laments the continued domination of collaborative agendas by the interests of Northern donors and scholars, and almost invariably calls for more equitable Southern engagement in agenda-setting processes … even innovative funding strategies cannot resolve all the tensions that characterise collaborative agenda-setting processes.
>
> (Bradley 2008, pp. 673–674)

Though research partnerships can contribute to capacity building, they are not enough. Like the conclusions of van Audenhove, Bradley's research illustrates the dilemma of combining the goal to achieve development with processes of building research capacity. Aid actors generally maintain that adequate research capacity is necessary for a country to be able to effectively address present and future challenges – regardless of whether the challenges are directly relevant to international or high-income country development goals. At the same time, the support can be conditioned in a variety of ways to match, for example, the foreign aid policy of a donor country.

The interest in cross-disciplinarity among donors is not new but increased during the 1990s and early 2000s. In practice, however, there are tensions between disciplinary and cross-disciplinary approaches as well as between basic and applied research. Criteria for research funding in donor countries also conditions which kind of research is rewarded and considered attractive (cf. Engel & Keijzer 2006; Strand et al. 2020). Short funding cycles in donor countries and associated publishing norms – favoring international journals over more national or local publications adapted more closely to the context in question – are also aspects that constitute challenges for effective and equal North–South research partnerships (Carbonnier & Kontinen 2015).

Neo-colonial science or mutually beneficial cooperation?

Global problems increasingly *require* international cooperation (on environmental degradation, climate change and threats to food and energy security, for example), something that could contribute to leveling the playing field between high- and low-income countries. Inequalities still create problems, however. Can research aid enable mutually beneficial and equal cooperation, or does it pave the way for neo-colonial science?

There is a substantial amount of discussion – among researchers as well as development practitioners – concerning *how* research aid should be pursued to contribute to sustainable research capacity in low-income countries. The primary purpose of cooperation between unequal partners is not necessarily knowledge production; collaboration also benefits knowledge transfer, career-building, model application to local conditions or fund-raising (Hwang 2008). The discussions are also explicitly and implicitly based on different views, for example, on what development *is*, how knowledge relates to development, what

theories of development and of knowledge production underlie efforts in research aid and what the role of universities is (or should be) in society and the economy. There exist many levels of tension between the idea of foreign aid based on solidarity, altruism and poor countries' interests versus strategic and profit-driven activities designed to "conquer" markets (cf. Berthelemy 2005).

Terms for North–South research partnerships have been – and remain – more or less equal depending on the methods used (cf. Nurse & Wight 2011). Exchanges might be explicitly or implicitly based more on priorities and needs of the university with the most resources, and when funds run out, priorities change, creating unsustainable preconditions for research, risking a perpetuation of inequalities (Muchunguzi Ishengoma 2016). Møller Madsen and Adriansen (2020) argue that research capacity building projects can perpetuate coloniality due to persistent underlining of Western scientific knowledge and norms as universal, outcrowding contextually relevant development. Costello and Zumla (2000) give some examples of unequal, or semicolonial, methods of research cooperation:

- **postal research:** high-income country researchers request low-income country colleagues to supply them with data
- **parachute research:** high-income country researchers travel to low-income countries for short periods of time and collect data; results of both types of research are often published with minimal representation of low-income country input
- **annexed sites:** field research, led and managed by expatriate staff; often successful but contributes to "brain drain" (Costello & Zumla 2000, pp. 827–829)

These tend to benefit high-income country researchers who contribute little or nothing to the research capacity of the low-income country. Nurse and Wight (2011) also discuss the *consultancy* and *multilateral agency* models, which tend to be similar to parachuting but can also involve local researchers and or the intermediary work of national offices of multilateral agencies like the UN, World Bank or WHO. They conclude, based on an East African health research case study, that conventional approaches like project-based financing in the parachute and consulting models are not as effective for capacity building as direct budget support and support to regional collaboration.

Altbach (2004) argues that colonialism has merely taken on new forms, acquiring stronger profit-seeking mechanisms. The power and resources of high-income countries in essence leads to low-income country universities having very few options but to participate in exchanges and collaboration with high-income country actors, for example, if they want access to the global scientific playing field (cf. Fellesson & Mählck 2017). Structural dependencies like these serve to maintain scientific core and periphery relationships, including the brain drain of students and researchers from South to North (Altbach 2004, 2007; cf. Shaobo 1997; Rodriguez Medina 2014; Adrianssen 2020). Beaudry et al. (2018)

argue that although research aid actors (including Sida-Sarec) contribute to continuity in research programs, create regional collaboration and networks and enable the establishment of better facilities and laboratories, the links to national science systems remain weak and research agendas tend to be set supra- or internationally.

An example of the neo-colonial effects of research aid is presented by Holland, who interviewed researchers in Malawi on some of the dilemmas they face. One researcher highlights part of the problem with unequal partnerships:

> Since the 1990s, we have been spending more and more of the limited time we have for research, on commissioned research for the sake of, you know, survival (laugh). So sometimes we have been undertaking research, a type of research for which we have limited expertise given the kind of training that most of us have, but we have no choice. We take them up for the sake of survival because that way we are able to access the money with which to improve the budget of the department, to buy computers, what we cannot get through the regular university budget.
>
> (qtd in Holland 2009, p. 563)

Holland concludes that there is a tension between Mode 1 and 2 science, in that the Mode 2 emphasis on applicable results is not always compatible with the quality criteria associated with Mode 1. Pursuing both basic and applied sciences, not least context where research capacity is limited, can be difficult (Holland 2009). In a similar discussion, Harris (2004) maintains that scientific capacity building has to be more in tune with the needs of the developing country partners: "Clearly, 'parachute science', in which investigators from developed countries merely collect samples, return home and publish papers, is of no real use to scientists and citizens in developing countries" (Harris 2004, p. 9). Instead, long-term support and research partnerships are necessary in order to build sustainable capacity.

As exemplified above, timeframes and resources are raised as an important factor in research aid (cf. Van der Leken et al. 2017). Reaching development goals and building capacity demands long-term endeavors and requires efforts on many levels. Aid actors are criticized for having too many short-term research cooperation projects (or, as expressed by several researchers: "parachuting partners"). This is also discussed by a group of UK researchers:

> There is often a tension between finding suitable interventions that can bring shorter-term and longer-term capacity building. Although short-term approaches may play some role in shaping long-term capacities, they may not be systemic, cost-effective, or appropriate. … Supporting the correct mix of activities is crucial to building effective capacity. … Short-term initiatives and activities must be understood in the context of longer-term institutional support and innovation.
>
> (Chataway et al. 2005, pp. 21–22)

Although the time-factor is considered an important ingredient, many projects that aim to improve research capacity are short-term and isolated from other projects and actors, which inhibits the learning process and limits their actual effect on capacity (ibid.; cf. Hagelsteen & Becker 2019; Upreti et al. 2012, Nurse & Wight 2011). Long-term cooperation, however, can also create academic dependencies, so finding an appropriate balance is not straightforward (cf. Alatas 2003).

Some donors have switched modalities and placed the "Southern" organization as lead, enabling them to select partners in the "North" instead of the other way around, and some organizations are offering co-funding for more equally shared agendas (Carbonnier & Kontinen 2015; Muldoon et al. 2012). A study of multiple North–South research partnerships by Upreti et al. (2012, p. 65) concludes that factors that enable success include: willingness and capacity to deal with power issues; a judicious choice of partners; sufficient resources to develop capacity where necessary; commitment of research partners and development cooperation agencies to engage with one another; transdisciplinary approach for connecting research and society; the creation of stable regional bodies; and common guidelines and procedures.

Similarly, Carbonnier and Kontinen (2014) argue that the principles and modalities in North–South research partnerships need to be reconsidered in the face of the fading relevance of traditional development dichotomies. Best practice examples include shared common interests, agreement on terms of reference, sufficient funding, clear institutional arrangements and ensuring equal work. Matenga et al. (2021, p. 55) find that authentic partnerships are characterized by "status and participation, transparency and accountability, interdependency and reciprocity, commitment to shared goals, open dialogue and sustainability". In order for mutual capacity building and internationalization benefits to come to fruition in research cooperation, Enemark (2005) argues that the role of high-income country universities in this process also needs to be clearer, which in turn depends on a common understanding among HIC actors (donor agencies, universities and education ministries) regarding the purpose and interests of all involved.

Hydén (2016) argues that support to higher education and research should not be tied to global goals but instead clearly be based on local priorities and ownership. Donor commitments also need to be long enough for learning and, if necessary, reprioritizing, and support to education and research "should be removed from the standard aid machinery and approached as an activity with particular needs" (Hydén 2016, p. 31). Letting national research councils (in both donor and recipient countries) take some of this responsibility is appropriate, he argues, but standard peer-review processes are not enough to help support the broader development of higher education and research. This, he suggests, requires separate special units, such as what Sarec constituted before being incorporated into Sida (Hydén 2016).

Having mapped out some of the tensions, dilemmas and opportunities identified in previous research, it is clear that although the knowledge about research

aid is diverse in its origins, scope and findings, there are recurring themes. I will now turn to Swedish aid and specifically narrow in on studies that in some way concern the activities of Sarec/the research unit at Sida.

Research on Swedish research aid

Sida and/or Sarec in relation to research aid is the subject of analysis in a number of books, articles and reports, although very few works focus solely or mainly on the Swedish case. In an article from 1998, Van Audenhove claimed that Sarec was among the "leading institutions in international discussions on higher education and development and play an emancipatory role towards Southern institutions of higher education and research" (p. 542). The other institutions were the Canadian IDRC, the Dutch Nuffic and the Norwegian Norad (cf. Jones et al. 2007; Hydén 2016). According to Van Audenhove, their emancipatory potential has had to do with, for example, the level of responsibility given to the low-income country partners. The more supply- or donor-driven an approach is, the less emancipatory. A working paper by Chataway et al. (2005) argues along similar lines and states that Sarec had a broad view of capacity and promoted low-income country ownership of the research agenda-setting. The authors maintain Sarec has focused clearly on universities in order to build long-term research structures but that they have started moving in the direction of Mode 2 science, where more actors (academic and non-academic) in a national setting are involved in the capacity building process. They also state:

> SAREC's support has differed from other donors in one important respect. It has explicitly supported institutional development of research capabilities in African universities, and exhorted others to join it in coordinated support led by the local universities themselves. … The thinking is also linked to the idea that research institutions should also be key national cultural centres not short-term ways of responding to particular development problems – although much of the research supported is applied, problem-oriented and strategic. Thus, there is a move within even this university-centred approach in the direction of Mode 2.
>
> (Chataway et al. 2005, pp. 10–11)

> The experiences of Sida-SAREC in supporting African universities as hybrid research and learning institutions illustrates that focus on support for the single best institution within a particular resource-poor setting can place universities within national systems of innovation. This approach provides short-term project support and also longer-term infrastructural program support, including library and ICTs, support for research management, laboratory development, and technician training. The model is one way of supporting the short-term within the context of the longer-term – as an institutional approach and potentially as part of a systemic approach. As such it

> is a much more flexible support system than much other project based, time boundaried bilateral support.
>
> (Chataway et al. 2005, p. 22)

It is unclear whether they consider the "Mode 2" entirely positive, but the idea of envisioning universities as part of a bigger national system is portrayed in an optimistic manner, as a win–win situation.

Gaillard (2003) paints a slightly different picture and discusses Sarec in an article about Tanzania and dependent science. He maintains that Sarec had been a very important donor in the area of research in Tanzania. The support modalities of the 1970s and 1980s, however, had in some ways inhibited independent identification of national research priorities. The project collaboration model, Gaillard states, had nonetheless strengthened the internationalization of Tanzanian science as well as Swedish development research capacity. The institutionally oriented university support is a more appropriate and demand-driven way to support research (Gaillard 2003).

Velho published a set of articles between 2002 and 2006 about Sarec's support to research capacity at four public universities in Nicaragua. Though I do not systematically include evaluations in this section on previous research since they are produced in different contexts than research (cf. Reinertsen et al. 2017), I did look at the Sida-commissioned evaluations concerning this specific case since Velho's critique so clearly related to this book's research questions. I was curious to see what kind of critique was voiced in the evaluations. Although this only refers to one country, and although I cannot account in detail for the extensive discussion available, I will describe it briefly because it raises some interesting questions.

Velho claims that while the policies of Sarec reflect a commendable, non-linear and systems-based view of capacity building – the cooperation in practice instead shows that the linear model (in "Mode 1" style) has not been abandoned (Velho 2004; cf. Velho 2006). She argues that the dominant focus on supporting the career development of individual scientists (attainment of MScs and PhDs through sandwich program training, for example) does not necessarily result in the kind of capacity that helps advance the development of Nicaragua. Sandwich programs entail that MSc or PhD students, for example, spend parts of their training period at an HIC university and the other parts at their university in the LIC. The concentration on the skills of individuals occurs at the cost of other aspects of capacity, such as the links between researchers and other actors like civil society and industry (Velho 2004), although other evaluations have drawn slightly different conclusions (Banzon Bautista et al. 2001).

Similar criticism as voiced in Velho's research was brought up in a 1994 Sida-commissioned evaluation conducted by Behar and Lundahl:

> Summing up, SAREC's support to research in Nicaragua has worked well in one sense, but not in another. It has financed a number of projects and programs which have produced output in terms of research results and high

> caliber training. However, the support provided has not always been clearly in keeping with development objectives of the country and has been spread out among too many institutions and projects. The capacity-building aspects have been somewhat overlooked. These factors have, in turn, tended to lower the efficiency of the assistance.
>
> (Behar & Lundahl 1994)

Another Sida-commissioned evaluation of the research cooperation with Nicaragua, written by Moreno and Alveteg (2003), refers to the quote by Behar and Lundahl above. The authors state that although they agree with them to a large extent, the support to individual scientists was mainly dominant during the 1980s and early 1990s, and that this still had positive (albeit indirect and long-term) effects on Nicaragua's research capacity and subsequently its development and quality of life (Moreno & Alveteg 2003). Another argument presented in this evaluation (in the commentaries section) in defense of the individual training focus was that it is difficult to foster links between research and other actors in society when there is no critical mass of trained scientists:

> All in all, the report includes an elaborate introduction about "development discourse", which ends up with denying itself. It namely concludes that innovations occur at the interface of research and economic activity. However, both are weak or not developed in Nicaragua and must be strengthened. There is, thus, no chance for a fruitful "interface" until the universities and research institutes are occupied with competent scientists who will be able to provide one side of the interface. How to develop the economic structure is not dealt with in the report, but if it will not be developed, there is little realism in proposing the "interface model" as an alternative to the currently operated model.
>
> (Valkonen, in Moreno & Alveteg 2003, p. 198)

The 2003 evaluation seems to have been a contentious one, and though this example focuses on just one country, it illustrates the many tensions that can arise when discussing the whys and hows concerning research aid. Gaps are identified, the intended effects of the development model – in this case related to innovation – are considered difficult to attain without certain preconditions being in place, and the research-related part of this constitutes a critical mass of critical scientists.

King and McGrath (2004) analyze and compare the knowledge-related discourse in Swedish aid with that of British, Japanese and World Bank aid. They conclude that despite talk of partnership, local ownership and capacity, aid still includes a troublesome amount of conditionalities. These conditionalities are in turn further encouraged by the increased demand for detailed accountability of public spending in high-income countries (King & McGrath 2004). They also maintain that the aid climate is such that speedy fund disbursements are desirable, something that does not necessary benefit indigenous capacity building

efforts. They point out that despite evidence to the contrary, many donors within the area of "knowledge-based aid" seem to assume that knowledge, policy and development outcomes are automatically connected (linear reasoning). One assumption, for instance, is that stakeholders will act rationally according to the knowledge available (ibid., pp. 50–51).

In terms of the four aid actors they studied, King and McGrath conclude that in what they call *technical cooperation and capacity development* (which includes research), Sweden, through Sida – and not least Sarec – has made the clearest efforts to shift from a "deficit view" (focus on gaps) towards more "mutuality" (ibid., pp. 45, 134–135). They also state, however, that Sarec's definition of knowledge (in the 2000s) seems quite "scientific and technical" when compared to the rest of Sida: "It is possible that this also leads to a greater sense of deficit and transfer than in other elements of Sida's discourse" (ibid., pp. 136). At the same time, they maintain that this is outweighed by the clear emphasis on demand-driven research agendas. According to them, the deficit view – closely coupled with a linear view of development – remained when Sarec was created in the 1970s, but gradually changed into a more systemic approach, much like the gradual change they claim took place at Sida in the view of how to promote development with increased knowledge. The first decades were characterized by the linear technology transfer view, and the 1990s and 2000s were characterized by a more systemic view of the role of knowledge, where local capacity played a more important part.

Swedish research cooperation with Laos was explored in a dissertation from 2007 by Bäcktorp, who explored the intersection of education and gender in relation to development aid as expressed by aid actors (the World Bank and Sida) and local actors (the National University of Laos) (Bäcktorp 2007, pp. 18–22). The National University in Laos cooperated with Umeå University in Sweden on capacity building (research training, for example). Among other things, Bäcktorp asked whether the discussions about gender in cooperation agreements have any transformative effect. She concluded that Northern discourses on gender seem to be hegemonic. Similarly to Eriksson Baaz (2005), she concludes that the concept of "partnership", for example, is not easily realized in practice.

Priebe's dissertation from 2009 (Gothenburg University) focuses on Swedish aid to malaria research in Africa (MIM – the Multilateral Initiative on Malaria) but does not analyze the policy or role of Sarec in depth. Her study focuses on how malaria research is constructed in a specific African context, addressing the broader problem of balancing donor and low-income country research inputs:

> If the organisations that support research in and about Africa do not wish to reproduce colonial orders, it is essential for them to pay attention to the points made within Postcolonial Theory that fall within the Africanisation concept, i.e. to pay attention to the right to ownership and involvement in all stages of knowledge production, so that a continuing reproduction of discriminatory and unequal arrangements can be diminished or (ideally) put to an end. This means for research support not to imagine scientific work as an

> autonomous activity, and to not only focus on financial, infrastructural and institutional support, but to also evaluate the political and social effects of different forms of support.
>
> (Priebe 2010, pp. 300–301)

The MIM case illustrated that universal taken-for-granted views of what malaria *can be* challenged in research cooperation. Knowledge other than academic and scientific knowledge is necessary in order to fully understand malaria.

Kjellqvist (former director at Sarec, 2008–2010) explores how Swedish aid has enabled innovation through its policies and practices, concluding that aid has become more abstract and policy-driven, marginalizing the role of knowledge and technology:

> The debt crisis and the end of the Cold War changed the aid goals in favor of democracy and human rights rather than economic growth and independence. Along with this change grew increasing demands on conditionality connected to Swedish aid. Work modalities changed to favor "policy aid" instead of material interventions. Knowledge and technology got a much more marginalized role under this regime.
>
> (Kjellqvist 2013, p. 7)

Kjellqvist maintains that the concept of capacity building was reconfigured as a top-down approach, serving the interests of donors rather than low-income countries.

In his dissertation from 2016, Bruno analyzes how agrarian expertise was employed in Swedish aid and how collaboration between agrarian institutions and Swedish aid authorities developed in the post-war period (Bruno 2016). He shows, through analysis of a number of aid projects, that the Swedish University of Agricultural Sciences (SLU) and its predecessors exercised considerable influence on agrarian aid from the 1960s until the 1990s. The collaboration between agrarian institutions and aid authorities assisted in repositioning agrarian expertise in Sweden as well as in a new global context. The experts in question were sensitive to the value and importance of locally specific knowledge and capacities at the same time as the development approach focused largely on technical processes. Agrarian experts' knowledge was closely anchored in the Swedish context, and it was not uncommon to adhere to (modernist) development models where Swedish understandings and Sweden's blueprints were considered superior alternatives. The experiences of agricultural research cooperation (similarly to experiences within the health sciences) influenced the creation of Sarec.

In a book focused on North–South knowledge networks, Hydén (2016) writes about funding agencies and concludes that "Sweden has been at the forefront of fostering projects that put partners in the North and South on an equal footing" (p. 19). Swedish research aid, he argues, recognizes that collaborations initiated and dominated by high-income country institutions do not have as positive effects on capacity building in "the South" as the provision of core funding to recipient

universities does. This is one of the reasons that support to development research in Sweden has been a smaller part of Sida's research budget, he argues (ibid.).

Based on a study involving scholars in Mozambique and Tanzania who had participated in sandwich PhD programs financed by Swedish research aid, Fellesson and Mählck (2017) explored their subsequent research activities in terms of time, funding, mobility and collaboration. They found that that few have access to sufficient resources for research after PhD graduation, and teaching demands also make post-doctoral research pursuits and mobility difficult. Almost half of the graduates have some kind of international research collaboration, but resource inequalities often lead to them having less room for carving out the terms of their involvement:

> The frequently unclear and inferior basis for participation in international collaboration projects awakes feelings among participants of being collaborative hostages – reduced to the status of a kind of "token presence" in Global North research projects on Africa.
>
> (ibid., p. 17)

They conclude that these unequal relations need to be critically assessed in order be overcome, and post-doctoral support might be an important complement in improving the preconditions for sustainability when it comes to research. Mählck (2018) finds that aid funding tends to construct PhD students as capacity building objects rather than being recognized as academic knowledge producers. This, she argues, is partly because it is a policy recommendation that the aid-funded students are pursuing PhDs primarily to contribute to building capacity at their home institutions, but it is also a reproduction of postcolonial hierarchies.

Concluding reflections

It is difficult to summarize the "verdict" on Swedish research aid judging from previous research, but the consensus seems to be that although Swedish research aid has bordered neo-colonial science during certain periods in some contexts, it has also fulfilled an important role for strengthening research capacities in partner countries. A systemic approach is upheld by previous research as preferable when compared to support that is focused on smaller parts of the system, like research training or individual projects. The risk of creating, maintaining or increasing dependency is an ever-present dilemma, and research aid seems to contain unavoidable tensions, such as the one of resource inequality between partners. Other tensions include the sometimes-conflicting timeframes of development research versus research capacity building and the balance between traditional understandings of scientific excellence versus practical relevance. The fact that research aid straddles the boundary between research and aid policy constitutes another challenge.

In drawing from multiple fields and scholarly traditions in this book, I engage in a cross-disciplinary critical conversation to shed light on the discourses and

imaginaries that characterize the policy direction of a pioneer aid actor. This book is of relevance to the fields of development studies and science and technology studies (STS) but can also more broadly be of interest to fields such as economics, history, sociology, anthropology, environmental studies, political science and any of the fields I draw from in this chapter. It is also of interest to development practitioners and policymakers, in Sweden and internationally.

Note

1 According to Bradley, one of the first concrete articles on making development research more equal was one by Amin, S. (1975). New Forms of Collaboration in Development Research and Training. *International Social Science Journal*, XXVII(4), pp. 790–795.

References

Adrianssen, H.K. (2020) Materialities and mobilities in transnational capacity building projects: uneven geographies of knowledge production. *Population, Space and Place*, 26(3), e2294. doi.org/10.1002/psp.2294

Alatas, S.F. (2003). Academic dependency and a global division of labour in the social sciences. *Current Sociology*, 51(6), pp. 599–613.

Altbach, P.G. (2004). Globalization and the university: myths and realities in an unequal world. *Tertiary Education and Management*, 10(1), pp. 3–25.

Altbach, P.G. (2007). Peripheries and centres: research universities in developing countries. *Higher Education Management and Policy*, 19(2), pp. 106–130.

Altbach, P.G., & Knight, J. (2007). The internationalization of higher education: motivations and realities. *Journal of Studies in International Education*, 11(3–4). doi.org/10.1177/1028315307303542

Amin, S. (1975). New forms of collaboration in development research and training. *International Social Science Journal*, XXVII(4): 790–795.

Arndt, C., Jones, S., & Tarp, F. (2015). Assessing foreign aid's long-run contribution to growth and development. *World Development*, 69, pp. 6–18. doi.org/10.1016/j.worlddev.2013.12.016

Baaz Eriksson, M. (2005). *The paternalism of partnership*. Zed Books.

Bäckstorp, A.-L. (2007). *When the first world goes local: education and gender in post-revolution Laos*. Umeå University.

Banzon Bautista, M.C.R., Velho, L., & Kaplan, D. (2001). *Comparative study of the impacts of donor-initiated programmes on research capacity in the South*. The Hague, Ministry of Foreign Affairs/Directorate-General for Development Cooperation, the Netherlands

Baudry, C., Mouton, J., & Prozesky, H. (2018). *The next generation of scientists in Africa*. African Minds.

Behar, J., & Lundahl, M. (1994). *Now's the time: an evaluation of the Swedish development with Nicaragua*. Secretariat for Analysis of Swedish Development Assistance (SASDA).

Berthelemy, J.C. (2005). Bilateral donor's interest vs. recipients' development motives in aid allocation: do all donors behave the same? *Review of Development Economics*, 10(2), pp. 179–194. doi.org/10.1111/j.1467-9361.2006.00311.x

Birdsall, N. (2008). Seven deadly sins: reflections on donor failings. In Easterly, W. (ed) *Reinventing Foreign Aid*. MIT Press.

Bradley, M. (2007). *On the agenda: North–South research partnerships and agenda-setting processes*. International Development Research Centre (IDRC).

Bradley, M. (2008). On the agenda: North–South research partnerships and agenda-setting processes. *Development in Practice*, 8(8).

Brown, S. (2020). The rise and fall of the aid effectiveness norm. *The European Journal of Development Research*, 32, pp. 1230–1248.

Brundenius, C., et al. (2009). The role of universities in innovation systems in developing countries: developmental university systems – empirical, analytical and normative perspectives. In Lundvall, B.Å., Joseph, K.J., & Chaminade, C.E. (eds) *Handbook of innovation systems and developing countries – building domestic capabilities in a global setting*. Edward Elgar Publishing.

Bruno, K. (2016). *Exporting agrarian expertise development aid at the Swedish University of Agricultural Sciences and its predecessors, 1950–2009*. Dissertation 2016:59, Uppsala University.

Burnside, C., & Dollar, D. (2004). *Aid, policies, and growth: revisiting the evidence*. World Bank policy research working paper 3251.

Carbonnier, G., & Kontinen, T. (2014). *North–South research partnership: academia meets development?* EADI policy paper series.

Carbonnier, G., & Kontinen, T. (2015) Institutional learning in North–South research partnerships. *Revue Tiers Monde*, 221, pp. 149–162. Armand Colin.

Chataway, J., et al. (2005). *Partnerships and building capabilities for science, technology, innovation and development in Africa*. The Open University, Research Centre on Innovation, Knowledge and Development.

Costello, A., & Zumla, A. (2000). Moving to research partnerships in developing countries. *British Medical Journal (BMJ)*, 321(September), pp. 827–829.

Enemark, S. (2005). *Capacity building for higher education in developing countries – A part of the Western world university portfolio?* Capacity Building in Higher Education and Research on a Global Scale. Copenhagen UNESCO.

Engel, P.G.H., & Keijzer, N. (2006). *Research partnerships: who decides? Review of a design process*. German Development Institute, The Hague.

Engel, S. (2014). The not-so-great aid debate. *Third World Quarterly*, 35(8), pp. 1374–1389. doi.org/10.1080/01436597.2014.946251

Fejerskov, A.M. (2016). The social construction of development cooperation success and failure. *Forum for Development Studies*, 43(3), pp. 365–383. doi.org/10.1080/08039410.2016.1164235

Fellesson, M., & Mählck, P. (2017). Untapped research capacities? Mobility and collaboration at the intersection of international development aid and global science regimes. *International Journal of African Higher Education*, 4(1). doi.org/10.6017/ijahe.v4i1.10248

Gaillard, J. (2003). Tanzania: a case of "dependent" science. *Science Technology Society*, 8(2), pp. 317–343.

Hagelsteen, M., & Becker, P. (2019) Systemic problems of capacity development for disaster risk reduction in a complex, uncertain, dynamic, and ambiguous world. *International Journal of Disaster Risk Reduction*, 36, 10112. doi.org/10.1016/j.ijdrr.2019.101102

Hagelsteen, M., Becker, P., & Abrahamsson, M. (2021). Troubling partnerships: perspectives from the receiving end of capacity development. *International Journal of Disaster Risk Reduction*, 59, 102231. doi.org/10.1016/j.ijdrr.2021.102231

Halvorsen, T. (2016). Higher education in developing countries: peril and promise, a decade and a half later: development lost? *International Journal of African Higher Education*, 3(1). doi.org/10.6017/ijahe.v3i1.9638

Hansen, H., & Tarp, F. (2000). Aid effectiveness disputed. *Journal of International Development*, 12, pp. 375–398.

Harris, E. (2004). Building scientific capacity in developing countries. *EMBO reports*, 5(1), pp. 7–11.

Holland, D.G. (2009). Between the practical and the academic: the relation of Mode 1 and Mode 2 knowledge production in a developing country. *Science, Technology and Human Values*, 34(5).

Hwang, K. (2008). International collaboration in multilayered center–periphery in the globalization of science and technology. *Science Technology Human Values*, 33(1), pp. 101–133.

Hydén, G. (2016). The role and impact of funding agencies on higher education and research for development. In Halvorsen, T., & Nossum, J. (eds) *North–South knowledge networks: towards equitable collaboration between academics, donors and universities*. African Minds.

Jones, N., et al. (2007). *Research capacity strengthening in Africa: trends, gaps and opportunities*. Overseas Development Institute (ODI).

King, K. (2004). *Development knowledge and the global policy agenda: whose knowledge? Whose policy?* Occasional paper. UNRISD.

King, K., & McGrath, S. (2004). *Knowledge for development? Comparing British, Japanese, Swedish and World Bank aid*. Zed Books Ltd.

Kjellqvist, T. (2013). *Biståndspolitikens motsägelser om kunskap och tekniköverföring–från konkret praktik till abstrakt policy*. Doctoral thesis, Blekinge Institute of Technology.

Krishna, V. V., Waast, R., & Gaillard, J. (2002). The changing structure of science in developing countries. *Science, Technology and Society*, 5(2), pp. 209–224. doi.org/10.1177/097172180000500205

Loots, E. (2006). Aid and development in Africa: the debate, the challenge and the way forward. *South African Journal of Economics*, 74(3).

MacKenzie, D., Muniesa, F., & Sui, L. (Eds). (2007). *Do economists make markets? On the performativity of economics*. Princeton University Press. doi.org/10.2307/j.ctv10vm29m

Mählck, P. (2018). Racism, precariousness and resistance: development-aid-funded PhD training in Sweden. *Postcolonial Directions in Education*, 7(1), pp. 11–36.

Matenga et al. (2021). Dismantling historical power inequality through authentic health research collaboration: southern partner's aspirations. *Global Public Health*, 16(1), pp. 48–59. doi.org/10.1080/17441692.2020.1775869

Mawdsley, E., Savage, L., & Kim S-M. (2014). A "post-aid world"? Paradigm shift in foreign aid and development cooperation at the 2011 Busan High Level Forum. *The Geographical Journal*, 180(1), pp. 27–38. doi.org/10.1111/j.1475-4959.2012.00490.x

Menon, V., & Nair, K.N. (2002). *Capacity building for demand-led research: issues and priorities*. European Centre for Development Policy Management.

Milovich, J.Y. (2018). *Does aid reduce poverty?* OPHI working paper 22. University of Oxford, OPHI.

Møller Madsen, L., & Adriansen, H.K. (2020). *Transnational research capacity building: whose standards count? Critical African Studies*, 13(1), pp. 49–55. doi.org/10.1080/21681392.2020.1724807

Moreno, E., & Alveteg, T. (2003). *Collaboration between Sweden and the public universities of Nicaragua*. Sida evaluations 03/31, Sarec.

Muchunguzi Ishengoma, J. (2016). North–South research collaborations and their impact on capacity building: a southern perspective. In Halvorsen, T., & Nossum, J. (eds)

North–South knowledge networks: towards equitable collaboration between academics, donors and universities. African Minds.

Muldoon, K.A., Birungi, J., Berry, N.S., Ngolobe, M.H., Mwesigwa, R., Shannon, K., & Moore, D. (2012). Supporting southern-led research: implications for North–South research partnerships. *Canadian Journal of Public Health*, 103(2), pp. 128–31.

Nurse, K., & Wight, D. (2011). Development assistance and research capacity strengthening: the commissioning of health research in East Africa. *Journal of Eastern African Studies*, 5(2), pp. 233–251. doi.org/10.1080/17531055.2011.571387

Odén, B., & Wohlgemuth, L. (2011). *Where is the Paris Agenda heading? Changing relations in Tanzania, Zambia and Mozambique*. European Centre for Development Policy Management (ECDPM). Briefing Note No. 21.

Ogbuoji, O., & Yamey, G. (2019). Aid effectiveness in the Sustainable Development Goals era comment on "it's about the idea hitting the bull's eye": how aid effectiveness can catalyse the scale-up of health innovations. *International Journal of Health Policy Management*, 8(3), pp. 184–186.

Priebe, G. (2010). *Att afrikanisera vetenskaplig kunskap. MIM och malariaforskningen i ett postkolonialt dilemma*. Göteborgs University.

Radelet, S., et al. (2004). *Counting chickens when they hatch: the short-term effect of aid on growth*. Working paper 44, Center for Global Development.

Reinertsen, H., Bjørkdal, K., & McNeill, D. (2017). *Confronting the contradiction – an exploration into the dual purpose of accountability and learning*. Expertgruppen för biståndsanalys (EBA). Rapport 2017:06.

Rodriguez Medina, L. (2014) *Centers and peripheries in knowledge production*. Routledge. doi.org/10.4324/9780203767016

Salager-Meyer, F. (2008). Scientific publishing in developing countries: Challenges for the future. *Journal of English for Academic Purposes*, 7, pp. 121–132. doi:10.1016/j.jeap.2008.03.009

Shaobo, X. (1997). Rethinking the problem of postcolonialism. *New Literary History*, 28(1), pp. 7–19.

Strand, C., Vähämäki, J., Söderbaum, F., Bjarnegård, E., Ewald, J. Hajdu, F., Jirström, M., Lalander, R., & Melber, H. (2020). *Development research in Sweden – a dispersed research community under pressure*. EBA working paper. Expert Group for Aid Studies (EBA). Sweden.

Svensson, J. (2001). *Foreign aid: does it work? Can it work?* Report to the Committee on Sweden's Policy for Global Development (Globkom).

Thörn, Å. (2008). Vem ger verkligheten namn? Om forskningsbistånd och blinda fläckar. Hjalmarsson och Högberg.

Tyfield, D., Lave, R. Randalls, S., & Thorpe, C. (2017). *The Routledge Handbook of the Political Economy of Science*. Routledge.

Upreti, B.R., Zimmermann, A.B., Debele, B., & Cissé, G. (2012). *Partnerships in development-oriented research: lessons learnt and challenges ahead*. Swiss National Centre of Competence in Research (NCCR) North–South, South Asia Coordination Office. Heidel Press Pvt. Ltd.

van Audenove, L. (1998). Development cooperation and linkages in higher education: issues concerning policy and organisation. *International Review of Education*, 44 (5–6).

van de Sande, T. (2006). *Priority setting in research for development: a donor perspective*. In Box, L., & Engelhard, R. (eds) *Science and technology policy for development: dialogues at the interface*. Anthem Press.

Van der Leken et al. (2017). *Research capacity building through North–South–South networking: towards true partnership? An exploratory study of a network for scientific support in the field of sexual and reproductive health. Health Research Policy and Systems*, 15(39). doi.org/10.1186/s12961-017-0202-z

Velho, L. (2004). Research capacity building for development: from old to new assumptions. *Science Technology Society*, 9(2), pp. 171–207.

Velho, L. (2006). Building a critical mass of researchers in the least developed countries: new challenges. In Box, L., & Engelhard, R. (eds). *Science and technology policy for development: dialogues at the interface*. Anthem Press.

Wako, H.A. (2017). Aid, institutions and economic growth in sub-Saharan Africa Heterogeneous donors and heterogeneous responses. *Review of Development Economics*, 22, pp. 23–44. doi.org/10.1111/rode.12319

Wagner, C.S., et al. (2001). *Science and technology collaboration: building capacity in developing countries?* The World Bank.

Weiler, H. N., et al. (2006). *Universities as centres of research and knowledge creation: an endangered species?* Summary report from Colloquium on Research and Higher Education UNESCO.

Zink, E. (2018) Ugandan scientists, Scandinavian collaborations, and the cultural economy of science. *Postcolonial Directions in Education*, 7(1), pp. 85–106.

3 Theoretical perspectives and methodology

> the predominance of the Western research tradition is not a matter of a conflict between "developed" and "undeveloped" thought, or of a "scientific" versus a "primitive" quality. It is a matter of differences of knowledge and intellectual specialization, which are ultimately due to differences in material resources, social organization, intellectual traditions and systems of values between different cultures.
>
> (Sarec 1977, pp. 8–9)

This quote frames different kinds of research traditions in an equal manner, objecting to the kind of differentiation that depicts Western science as superior. The goals and methods of aid actors depend in part on what views of development they adhere to – explicitly or implicitly. In an analysis of the concept of *progress*, Stirling (2009, p. 5) maintains that it is difficult to see a diversity of futures from the vantage point of a powerful actor (for example an aid actor): "Patterns of power in society may thus be seen not only as outcomes, but also as determinants of our understandings of progress". Science and technology are strongly associated with progress and modernity, and aid actors produce specific ideas about the role of science and technology in development. As exemplified by the quote that opened this chapter from Sarec's first annual report, knowledge systems and their underpinnings can be conceived of differently. This also implies that there are a number of alternatives that are *not* imagined, or "made possible", at any given time. If higher education dominates a university, it may not be considered to be optimally functioning according to certain ideals since strong research would also be required. One point of departure in this study is that research aid policies affect how researchers and universities in low-income countries are perceived, and also to some extent affect the choices available to these researchers and universities. Policy is politics.

Discourse theory, according to political theorist David Howarth, is a theory that assumes that the meaning of objects and actions is a "product of historically specific systems of rules" (Howarth 2000, p. 8). Discourse can be defined quite narrowly, as single utterances or conversations, or it can be conceptualized more widely, as branch-specific language or entire systems of meaning. Schools

DOI: 10.4324/9781003033271-3

of discourse analysis may be placed on a scale from structuralist/realist to post-structuralist/constructivist. Somewhat simplified: structuralist accounts see physical and material resources first and foremost as creating the preconditions (possibilities as well as limits) for certain discourses, whereas post-structuralist accounts underline the significance of discourses in shaping and constituting the physical and material world and our perceptions of it (ibid.). Discourse theorists are interested in "how, under what conditions, and for what reasons, discourses are constructed, contested and change" (ibid., p. 131). Discourse *analysis* refers to analysis of how discursive forms and practices are signified, and this is done by using a variety of qualitative methods, including document analysis and interviews (ibid.).

In this book I employ discourse theory and analysis to interpret how research policy discourse in the context of Swedish official foreign aid has been imagined and portrayed since the 1970s. Through an analysis of documents and interviews, I identify how, for example, the role of science and technology in development is discursively constructed; how researchers, universities and aid actors are seen to play into this; and how these conceptions evolve over time. My ambition has been to analyze this development while also being able to make sense of the empirically informed literature on development and knowledge that is more or less explicitly embedded in the material.

The purpose of this chapter is to discuss how discourse theory, together with perspectives and concepts from STS, provides relevant points of departure for this study. Furthermore, I explain what methods and materials I have used to answer my research questions, and why.

Framing the construction of research aid: theories of discourse

Discourse theory and analysis have their roots in both structuralist and post-structuralist linguistic philosophy that portrayed language as a system of signs given meaning through social conventions (Jörgensen & Phillips 2002). Linguist Ferdinand de Saussure (1857–1913) was among the first to claim that words (or *signs*) gain meaning in relation to other words, as opposed to the phenomenon or physical object it refers to – relations that can change over time depending on social conventions (ibid.). He also distinguished between language as *structure*, which he considered a stable system of rules and relations, and language in *use*. To take a very concrete example, the word "bag" could refer to something we carry things in during one period or context and something entirely different in another period or context, but "bag" always gets its meaning from other words that represents *other* things. A bag is *not* a guitar, for example.

Post-structuralists such as Jacques Derrida, Roland Barthes and Michel Foucault rejected this sharp distinction and claimed that language as structure was in fact much less stable and more subject to inconsistencies than Saussure had claimed. Words or signs *do* get their meaning from their relation to each other, but these relations can differ, and words can have different meanings depending on the context in which they are used (ibid.). The word "wicked" can be either

something very negative or something very positive, depending on who is using it, when and in what context. Post-structuralists argued that this fact made language in use the more interesting study object since this was where the differences and changes in meaning could be observed. On a general level, many of the post-structuralist discourse analysts share the view that language is not a neutral reflection of "reality"; our access to the material or physical world is *through* language (ibid.). Language enables us to create representations of physical objects and material resources and these representations contribute to *constructing* reality. Furthermore, what we count as valid knowledge is historically and culturally specific – it could have been otherwise. Certain ideas or actions may be acceptable in one time and place while others are deemed unthinkable.

I have chosen to use Foucault's theory about discourse as a general point of departure in this study, and I will start with a discussion about some of his central arguments and concepts. Foucault's ideas will then be complemented by more contemporary discourse theory, focusing mainly on Norman Fairclough's conceptualization of discourse, which assists in more concretely framing my object of study. Foucault and Fairclough are not applied in a reverent manner. I borrow some perspectives and conceptualizations that I find useful for contextualizing, understanding and explaining my study of Swedish research aid. I discuss some of the areas where they harmonize and overlap, and some points of potential contention. Concepts used within of STS – sociotechnical imaginaries and boundary organization – complement discourse analysis, and together they make my theoretical framework somewhat of a patchwork quilt in that sense, but one sewn together in a robust manner and enabling a multi-faceted analysis.

Discourse according to Foucault

Foucault is often categorized as being post-structuralist, though many argue that his early work was semi-structuralist, and he himself generally seemed to be against categorizations of this sort (Nilsson 2006). Discourse analysis post-Foucault has been developed and applied in a wide variety of fields and with quite different emphasis and methodology. Most contemporary discourse analysts agree with Foucault's basic theoretical claims, or at least use them in some way (Jörgensen & Phillips 2002). In addition to differing in terms of how realist or constructivist they are, they vary regarding scope and levels of analysis.

Foucault's definition of discourse varies, but one is "practices that systematically form the objects about which they speak" (Dreyfus & Rabinow 1983, p. 62). How we act and talk in relation to an object defines to a large extent what that object becomes. To take an example, the object *development* is systematically and actively constructed and contested through acts and statements that reinforce certain values and beliefs while excluding others. *Objects*, furthermore, can be seen as central building blocks, essential parts of what characterizes any specific discourse. In a similar manner to social theorist Walter Bryce Gallie's essentially contested concepts (cf. Collier et al. 2006), these central objects (such as development or capacity) may be defined quite differently within the same certain

field, for instance (intentionally or unintentionally), or can be widely used without really being defined at all. They are concepts that have a high degree of plasticity and enable a diversity of uses.

Another definition of discourse is "historically specific systems of meaning which form the identities of subjects and objects" (Howarth 2000, p. 9). Specific *possibility conditions* are constructed by both discursive and "non-discursive" practices, according to Foucault, and these possibility conditions determine what can be considered knowledge and knowing during a specific historical period (Dreyfus & Rabinow 1983). Foucault believed in a principle of "ontological discontinuity" – continuities and causal mechanisms were to be challenged (Nilsson 2006, p. 52). He strongly maintained the post-structuralist standpoint that there is no one history, just as there is no correct grand and all-encompassing theory (ibid.). In other words, one should analyze from a specific perspective.

The empirical studies that Foucault conducted focus on how norms and knowledge are made legitimate and objective. He was interested in power and knowledge, not least claims to truth through the use of scientific knowledge: "through his studies of psychiatry, biomedicine, penology, sexuality and various bodies of political knowledge, Foucault explored how such forms of knowledge informed and enabled the exercise of power" (Triantafillou 2012, p. 11). Identifying *underlying meaning* was not the purpose with the type of studies he conducted. The analyses do not lend themselves to empirical generalizations; instead, they examine what the political uses of certain knowledge production can be, for example, and show how it is possible to think in a certain way (Dreyfus & Rabinow 1983). One example that he provides is the idea of the university. This idea makes possible a certain mix of "things" in a university system; the institutions and practices of that particular time must sustain the discourse, otherwise it cannot "fulfill" that particular idea of the university (ibid., p. 66). During the 2000s, for example, it has become more common to have "innovation offices" at Swedish universities, and one could argue that this would not have been possible if it were not for the increasing amount of discussion in Swedish research policy (among other places) about the role of universities in relation to innovation and economic growth.

Foucault's studies problematize rationality and subject formation and identify boundaries, how categories are created and maintained. The possibility conditions as constructed in research policy during a particular decade open up for certain interpretations of development and the role of universities while excluding others. The policies of the time and organizational structures form part of these possibility conditions. I can analyze how Swedish research aid policies set up and maintain certain boundaries and categories over time. The documents I have analyzed and the former directors I have interviewed can be conceptualized as *discursive agents*. According to policy researchers Karin Bäckstrand and Eva Lövbrand, discursive agents "interpret, articulate and reproduce storylines congruent with certain discourses" (Bäckstrand & Lövbrand 2007, p. 125). These agents contribute to the strengthening, maintenance or weakening of central objects in the discourses identified.

Archaeology and *genealogy* are two alternative modes of writing history put forth by Foucault (Nilsson 2006, pp. 58–59). The archaeologist, he claims, is "interested in how one discourse formation comes to be substituted by another … it is not the purpose to discover the birth of discourses" (Dreyfus & Rabinow 1983, pp. 73–74). At the same time, he says that archaeology is pure description of discursive events and that the analysis of statements is a historical analysis that avoids all interpretation (Foucault 1972, p. 109). This might be considered contradictory and problematic since it suggests that the historian can be completely objective (cf. Howarth 2000, p. 62). Archaeology, furthermore, assumes that discourses as autonomous practices produce the object of which it speaks more so than "non-discursive" factors. Discourse acts upon and changes non-discursive factors (Dreyfus & Rabinow 1983, pp. 61–62; Howarth 2000, pp. 52 & 72). Archaeology is more concerned with dominant discourses or serious claims to truth.

The genealogist, on the other hand, studies how primary spaces emerge, spaces that "condition, limit and institutionalize" discursive formations (Dreyfus & Rabinow 1983, pp. 106 & 109). Genealogy does not study discourses in isolation; it produces a history that takes into account a diversity of elements that contribute to the constitution of knowledge – including non-discursive practices (Howarth 2000, p. 72). Foucault maintains that genealogy entails capturing the diversity of passing events, not forcing the telling of a balanced tale:

> Genealogy does not pretend to go back in time to restore an unbroken continuity that operates beyond the dispersion of forgotten things; its duty is not to demonstrate that the past actively exists in the present, that it continues secretly to animate the present, having imposed a predetermined form on all its vicissitudes.
>
> (Foucault 1977, p. 146)

In his genealogical studies, Foucault also engaged in a more critical evaluation of the discourses in question: "genealogy is committed to a thoroughgoing 'perspectivism' in which events are perceived from the particular view of a 'situated' researcher" (Howarth 2000, p. 71). I agree that it is impossible to restore a complete picture of history, but parts of the past can be traced in present policies, sometimes implicitly and sometimes explicitly.

Foucault maintains in his genealogical work that discursive formations need to be placed in a larger *power context* for us to be able to "evaluate its claim to describe reality" (Dreyfus & Rabinow 1983, p. 72). In the *Archeology of Knowledge*, non-discursive factors are defined as including "an institutional field, a set of events, practices and political decisions, a sequence of economic processes that also involve demographic fluctuations, techniques of public assistance, manpower needs, different levels of employment etc." (ibid., p. 157). These are seen to surround and sustain the discursive factors, though discourse is still considered more constituting. He calls it a space or system of primary relations, which also relates to a space of reflexive or secondary relations, and a discursive system of

relations. I interpret this as meaning that any given space consists of different sets of relations. The space might be "Swedish research aid" and the primary and secondary relations constitute what early Foucault might call the non-discursive aspects of this particular space – things such as the organization Sarec or the research unit at Sida and its placement within the institution of Swedish aid etc.

Linguistics researcher Sara Mills maintains that although a political commitment is not as straightforward in Foucauldian discourse theory as it is when using for example ideology analysis, it is possible (Mills 2003, p. 29). Feminist and postcolonial analyses are a testament to this, states Mills, and other scholars like Triantafillou maintain that Foucault's genealogy in particular contains potential for political critique in relation to for example forms of governance. We can be considered "trapped" in our time, entrenched in a specific historical perspective on what kind of political action/government seems reasonable, for instance, within which it is very difficult to imagine other perspectives (Triantafillou 2012, pp. 1 & 4–5). Foucault's analyses are envisaged to contribute to "unsettling existing power relations, making them more mobile and reversible, and by implication creating more space for the exercise of freedom" (ibid., p. 2).

This study could be classified as a genealogy in the sense that I am not simply *describing* the discourses (nor claiming that I can), and the discourses are studied in relation to their context. The purpose is to capture dominant discourses as well as irregularities and continuities that do not necessarily fit the more general categories.

Fairclough's take on discourse

I have chosen to complement the perspectives of Foucault discussed previously with certain parts of Fairclough's *critical discourse analysis* (CDA) approach. I consider his conception of discourse useful and therefor helpful in guiding the analysis.

According to Fairclough, "discourses are semiotic ways of construing [representing] aspects of the world (physical, social or mental) which can generally be identified with different positions or perspectives of different groups and social actors" (Fairclough 2009, p. 164). Discourse encompasses both written and spoken language, including visual images (Fairclough 1993, p. 3). Fairclough regards language use as "a form of social practice rather than a purely individual activity or a reflex of situational variables" (ibid., p. 62); it is not just something that *represents* the world – it also signifies or constitutes it. "Different discourses constitute key entities in different ways, and position people in different ways" (ibid., pp. 3–4).

In Fairclough's view, there is a *context* surrounding the discursive (similar to what Foucault calls non-discursive practices) that is significant for how things develop and change. The structure of the political system is one such example. "Reality (the potential, the actual) cannot be reduced to our knowledge of reality, which is contingent, shifting and partial" (Fairclough 2003, p. 14). He draws a parallel to the texts we analyze, saying that the potential realities or meanings

of a text cannot be exhausted by our knowledge of them. In relation to constructivism, he maintains that the way we represent the social world *can* change its construction, but that this also depends on many contextual factors (ibid., pp. 8–9).

In line with Bourdieu, Fairclough is in favor of a "constructivist structuralism … a way of seeing and researching social life as both constrained by social structures, and an active process of production which transforms social structures" (Chouliaraki & Fairclough 1999, p. 1). Discourse is both constituted and constitutive but is only one of many aspects of any social practice. Furthermore, discursive practices are interdependent: "any discourse practice is generated out of combinations of others and defined by its relationship to others" (Fairclough 2003, pp. 39–40). What is said and what is written can be interpreted very differently depending on which discursive formation in which it is said or written.

Fairclough uses the discourse concept in different ways. One level is abstract, where language use is seen can be a *social practice* (relating to a wider context, like Swedish state politics). Discourse can also be a certain *type* of language used within a specific setting or context, such as foreign aid, marketing or banking. A slightly more concrete use of the concept is "a way of speaking which gives meaning to experiences from a particular perspective which can be distinguished from others" (Jörgensen & Phillips 2002, pp. 66–67). An example of this might be feminist discourse or liberal discourse, although categories can be even more specific, of course. Discourses can be constructive in several ways; they can construct social identities and subject positions (identity function), relationships between people (relational function) and systems of knowledge and belief (ideational function) (Fairclough 1993, p. 64).

> texts simultaneously represent aspects of the world (the physical world, the social world, the mental world); enact social relations between participants in social events and connect parts of texts together and connect texts with their situational contexts.
>
> (Fairclough 2003, pp. 26–27)

Fairclough calls every instance of language use a *communicative event* that has three dimensions; it is a text, a discursive practice and a social practice. The analysis of discourse should therefore take into account the context in which the text in question (spoken, written or visual) is produced and consumed. A three-dimensional model is proposed by Fairclough to conceptualize discourse, situating the social practice, the discursive practice and text. He aimed to bring different traditions together in this model, linguistics and macro-sociological theory, for example (Fairclough 1993, pp. 70–73). Inspired by this conceptualization, I have framed the case of Swedish research aid that follows in relation to the three different dimensions.

The discursive practice is where the production, distribution and consumption of texts occur. Who does what? Where and under what conditions? How are

Figure 3.1 Framing the case of Swedish research aid, inspired by Fairclough's three-dimensional model

texts distributed, who reads them, why and how? Depending on if we are talking about a newspaper, an academic article, a photo, a commercial ad, an interview transcript or an annual report, these routines and conditions vary. These processes of production and interpretation are influenced and conditioned by the structures, norms and convention of its context, including the social structures (ibid., pp. 78–80).

The social practice dimension is a wider context and can contain many different economic, political or cultural elements, for example – all of which can be discursive to some extent. Ideologies are embedded in discursive practices, Fairclough maintains. They assist in establishing or maintaining "relations of domination" or hegemony:

> Hegemony is leadership as much as domination across the economic, political, cultural and ideological domains of a society. … it is the power over society as a whole of one of the fundamental economically defined classes in alliance with other social forces, but it is never achieved more than partially and temporarily, as an "unstable equilibrium." Hegemony is about constructing alliances, and integrating rather than simply dominating subordinating classes, through concessions or through ideological means, to win their consent.
>
> (Fairclough 1993, p. 92)

Ideologies can also be used in struggles to reshape and transform discursive practices. Texts may have remnants and traces of these ideologies, but ideologies do not *reside* in texts, argues Fairclough. Meaning is produced through the social process of interpretation, which can lead to quite different results depending on how it is done (ibid., pp. 87–89).

Studying the discursive practice entails focusing on how, for example, authors draw upon previous discourses or how readers interpret texts, while the study of the texts themselves is more focused on formal features like vocabulary use (Jörgensen & Phillips 2002, p. 69). According to Fairclough, the researcher needs other theories in order to analyze the social practice dimension, such as macro and middle-range theories about how society is constituted and changes (Fairclough 2009, pp. 168–169). Individual texts may draw on discourse elements from other texts (*intertextuality)*, and change can be analyzed through investigating intertextuality (Jörgensen & Phillips 2002).

My research questions encompass all these levels – research aid policy contains ideas regarding researcher identities, for example, relationships between them and their relation to a larger system of knowledge and belief about the role of science and technology in development. The study focuses primarily on texts, but the analysis is also consistently related to the contexts that presumably affect, and are affected by, these texts. The analysis relates more to the wider social practice than to the more immediate discursive practice; the analysis of the production and interpretation of the texts by *others*/intended audiences is the least studied aspect. Having said that, some of this interpretation does become visible. The analysis of evaluations and the responses coupled to them is one such place where one type of interpretation by others is illustrated. Also, some interviews and annual reports at times refer to how X report was received and interpreted by actor Y, for example, but I did not set out to systematically investigate how central texts were interpreted.

Discourses and imaginaries

Another key concept to address in this context is *imaginaries*, a concept that has a variety of definitions and uses (cf. McNeil et al. 2017). According to Fairclough, discourses contain representations of how things *are* and have been as well as imaginaries of "how things might or could or should be" (Fairclough 2010, p. 266): future visions that can be put into effect through networks of practices. Imaginaries, in this sense, are the part of discourses that refer to things like goals and visions.

> The knowledges of the knowledge-economy and knowledge society are imaginaries in this sense – projections of possible states of affairs, "possible worlds." These imaginaries may be enacted as actual (networks of) practices – imagined activities, subjects, social relations etc. Such enactments include materialisations of discourses, in the "hardware" (plant, machinery, etc) and the "software" (management systems etc.).
>
> (ibid., p. 266)

Another use of the concept is *sociotechnical imaginaries*, which STS researchers Sheila Jasanoff and Sang-Hyun Kim define as: "collectively imagined forms of social life and social order reflected in the design and fulfillment of nation-specific

scientific and/or technological projects" (Jasanoff & Kim 2009, p. 120). The role of the state and non-scientific political institutions in defining the purpose of publicly supported science and technology deserves more attention in STS research, they argue. Science and technology are important in the construction and stabilization of collectives, and multiple imaginaries can coexist in tension with and produce dialectical relationships (Jasanoff & Kim 2015). In their 2009 article about national policy narratives of the US and South Korea concerning nuclear power, they question whose interests are served, how the public good is defined and steered and how technological risks are handled. How are controversies solved, and how do science and technology projects reinforce particular conceptions of nationhood and the good society? Sociotechnical imaginaries, they maintain, are not policy agendas: "they reside in the reservoir of norms and discourses, metaphors and cultural meanings on which actors build their policy preferences" (ibid., p. 123). In a manner similar to discourses, sociotechnical imaginaries create certain possibility conditions, building on the idea that the collective imagination can be constitutive of social and political development. They are institutionally stabilized and construct possible futures. Sociotechnical imaginaries are collectively held but not limited to nation states, and they can originate from smaller collectives as well as individuals (Jasanoff & Kim 2015).

In this book, I focus on sociotechnical imaginaries as active exercises of *state power* that help to create the political will or resolve to attain certain kinds of developments through the application of science and technology (Jasanoff & Kim 2009). Exploration of past sociotechnical imaginaries can provide useful insights for present developments. For example, in an article from 2013, Jasanoff and Kim conclude that South Korea's national energy policies show how the risks associated with energy technologies are considered far less important than the potential failure to develop as a country (Jasanoff & Kim 2013, p. 189). The concept of sociotechnical imaginaries is a fruitful complement to discourse in the framing and analysis of research aid policy. The goal has been to identify major sociotechnical imaginaries in each decade as a way to understand what kind of futures the discourses are enabling. Sociotechnical imaginaries can also be useful in a critical discussion of alternative futures.

Boundary organizations: enabling science for development?

The fact that organizations such as the research unit in Swedish aid are influenced by both aid politics and research politics makes an analysis of their discourses and sociotechnical imaginaries a very interesting and complex task. The concept of boundary organization is therefore useful in this analysis.

With boundary organization, I mean – in line with David H. Guston in his study of the US Office of Technology Transfer – one that straddles a task involving at least two distinct political areas (Guston 1999). According to Guston, these organizations "internalize the contingent character of the science/politics boundary" (ibid., pp. 90–91). The boundary, furthermore, is constantly negotiated, and its success depends on the satisfaction of the organization's political

principals (patrons: politicians) and scientific *agents* (performers: researchers in this case) (ibid., p. 91). These are concepts that Braun and Guston borrow from Stephen Turner's principal–agent theory, assisting in explaining the way by which one actor delegates tasks to another, one that is presumably more capable of performing them: "an extension of self by delegation" (Braun & Guston 2003, p. 303). The boundary organization is a site that enables stabilization and facilitates the co-production (cf. Jasanoff 2006) of both knowledge and social order with their differing logics of action – fulfilling both scientific and political interests (Braun & Guston 2003). Boundary organizations, Guston maintains, also enable the production and use of *boundary objects* (cf. Star & Greisemer 1989) (such as a patent or a report) that sit "between two different social worlds, such as science and non-science, and they can be used by individuals within each for specific purposes without losing their own identity" (Guston 2001, p. 400).

The political principals may have the money and interest to perform a task, for instance, but not the necessarily skills or time. In the case of research aid, the government delegated the task to Sarec and later Sida, for example, via the principals of the Ministry of Foreign Affairs and the Ministry of Education. Sarec and later Sida can also be seen as a principal since they in turn funded various different actors: international research organizations, universities in low-income countries and Swedish universities. This was the case both when it was an independent agency and when it was part of Sida. There can also be *professionalized mediators*, which in this case could be administrative staff at Sarec or universities: staff who

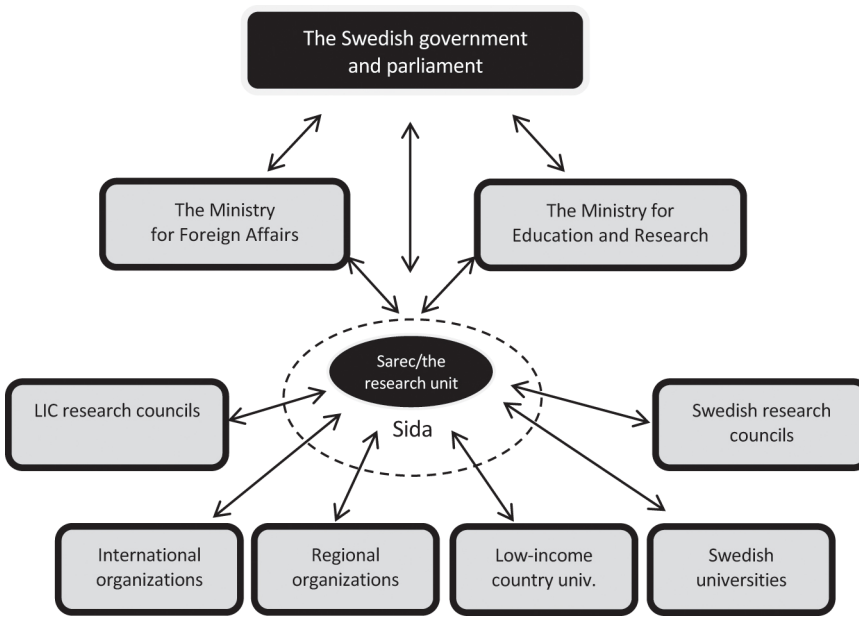


Figure 3.2 The boundary organization

might have a PhD, for example, but are not employed to conduct research and rather mediate it (Guston 1999, p. 93).

The assumptions about principals and agents are built on perspectives from institutional economics that assume some sort of rational actor behavior that is driven by self-interest (Braun & Guston 2003). I believe it is more appropriate, however, to talk about *bounded rationality*, assuming individuals and actors can only possess partial information (cf. Simon 2000).

As discussed earlier, from a discourse theoretical perspective Sarec, the annual reports, its staff and directors can be considered discursive agents that act and are acted upon in different ways depending on their context. Figure 3.2 visualizes the boundary organization of Sarec and its principal and agent relations.

The research aid organization is both principal and agent, as illustrated earlier. Guston's ideas are useful to describe and understand the place of Swedish research aid since they specifically deal with the relationship between politics and science. The parliament provides instructions, but the policy is heavily influenced by, and concerns, the responsible Ministries of Foreign Affairs and Education and Research. Much of what I focus on does not concern the organization per se; however, the relationships are discussed from the point of view of the documents and interviews.

Summarizing key theoretical assumptions and concepts

Informed by both Foucault and Fairclough, I understand discourses as historically situated practices (such as speech and written text) that contribute to the formation of the objects and the identities of subjects that they refer to. Discourses actively construct that of which it speaks, such as ideas about universities and researchers in low-income countries. Many different interpretations and constructions of the physical and material world are possible. Having said that, natural and man-made objects or artifacts have physical properties, and sometimes also inscribed politics (cf. Winner 1986) that can affect how we are able to interact with them. Historical contexts and path dependencies place limits on the number of possible actions and interpretations in any given situation. So even though there are many functions one could imagine a physical object having, what we end up doing with it is conditioned by our preconceived notions as well as the object's size, shape and potentially intended uses via designers, and so on.

How development is constructed depends on how it has been constructed previously and on what we conceptualize as *not* development, as well as how the objects it refers to materialize in different ways. Development is often associated with "eliminating" or "reducing" poverty, for example – creating economic growth, prosperity and well-being. Concretely we might think of things like children being able to going to school, thriving "productive" sectors (industries and businesses, for example) and people earning sufficient income to feed their families, access to health care etc. Of course, there are conflicts surrounding these associations. There are struggles about the right to define

problems and their solutions, but in any given time period a certain set of interpretations and definitions will appear as more reasonable than others.

Swedish official research aid policy affects and is affected by different actors, contexts and ideas. The influence theoretically flows in all directions, but in this case the focus is on how the policy documents and interviews construct research for development, thereby directly and indirectly contributing to some potential futures and not others. While keeping in mind that there is room for change and resistance within all these spaces, I argue that Swedish research aid discourse (as constructed by texts such as annual reports, parliamentary proceedings, evaluations and interviews with former directors) is partly constitutive of the preconditions for universities and researchers in low-income countries. It is also constitutive of how they are *perceived* to do so by those who take part of the documents, regardless of whether these are critical or positive readers for example. The story I am telling could be visualized as in Figure 3.3:

The texts I analyze enable the identification of several different discourses concerning the role of science and technology in development. These discourses mirror different *sociotechnical imaginaries*: projections by the Swedish state about certain futures and the place of science and technology within these.

The discourses identified in this book will be discussed in more detail at the end of Chapter 4, but to facilitate the reading of the chapter it is necessary to say a few words at the beginning as well. The *universalist* and the *localist* discourses can be seen as two central perspectives that flow through the policy

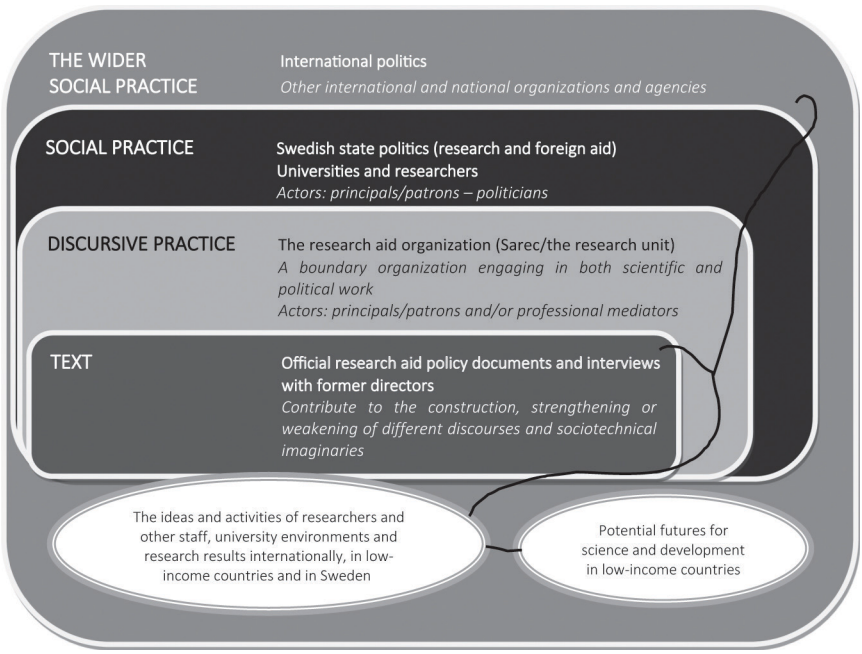


Figure 3.3 Theoretical framework

development of Sarec during its entire existence and into its new form as a research unit at Sida post-2008. The discourses are characterized by contrasting views on science, knowledge and development. At the same time, they share some common ground. Both discourses envision ("Western") science as being able to contribute to development in low-income countries, and they consider local/national research capacity to be important for this to occur. They differ in views of *how* to achieve development through the use of research, defining development problems in different ways and underlining certain modes of support over others, for example.

Some ethical considerations

Using a critical analytical approach raises a few ethical questions that deserve attention. It demands an ability to somehow determine what inequality or injustice may consist of, since one would effectively have to take some sort of stand. Neither development agencies nor universities are neutral actors; hence, they continually contribute to constructing certain discourses and potential futures while excluding others. By attempting to understand which discourses are strengthened and which ones are excluded, one can create a space for critique and potential change. Development policy is one place where struggles to define futures very clearly take place.

The ideas of both Fairclough and Foucault entail a critical approach that involves commitment to social change. Fairclough argues that discourse functions ideologically and creates subjects based on categories such as gender or class (identity function), contributing to the reproduction or transformation of dominant relations. Foucault's kind of critique is considered less direct. Postcolonial researcher Ania Loomba maintains that though colonial discourse studies are in debt to Foucault – with reference, for instance, to Edward Said (1978) – Foucault's theories were criticized for being inadequate for postcolonial analysis since they are Eurocentric in their conceptions (Loomba 2005). "far from being an objective, ideology-free domain, modern Western science was deeply implicated in the construction of racist ways of thinking of human beings and the differences between them" (Loomba 2005, p. 56). Despite the critique, discourse theory can still be useful in the study of science and technology policy (cf. Cornwall 2007).

Philosopher Colin Koopman maintains that Foucault engaged in *critical problematization* that lends itself to normative commitments but not necessarily explicit critique, with the goal to undermine and subvert or strengthen different practices (Koopman 2009, pp. 91–92). The type of critique I deliver in this study is in line with this (cf. Graham 2005). My choice of theory favors more pluralistic views over linear accounts of historical development, but the primary aim in this study is to identify different discourses, how they are built up and how they evolve during a specific period. To use the terminology discussed by STS researchers Vasilis Galis and Anders Hansson (inspired by Brian Martin's book *Confronting the Experts* from 1996), my approach could be placed somewhere in between *de facto* and *overt* partisanship (Galis & Hansson 2012, pp. 5–7; cf.

Restivo & Bauchspies 1997). I would argue that one can strive for a certain distance to theory and the empirical material, as well as one's preconceived notions of them. In other words, rigorous and consistent application of theory and methodology along with the ambition to be explicit about one's own stance increases transparency and makes the results of this study valid.

I do not claim that this interpretation of Sarec's policies is the only possible one, but it is a well-grounded interpretation. Although my aim is not to provide policy advice, I can point out certain patterns and reason about their potential implications with the help of previous research and different theoretical perspectives (cf. Giere 2006).

Methodology

> Genealogy is gray, meticulous, and patiently documentary. It operates on a field of entangled and confused parchments, on documents that have been scratched over and recopied many times. … To follow the complex course of descent is to maintain passing events in their proper dispersion; it is to identify the accidents, the minute deviations – or conversely the complete reversals – the errors, the false appraisals, and the faulty calculations that give birth to those things that continue to exist and have value for us.
>
> (Foucault 1977, pp. 139–146)

My theoretical and methodological point of departure is a discourse analytical perspective. The theoretical underpinnings of discourse analysis have been discussed previously, so here I will concentrate on the concrete implications of these in the research process.

The material used by discourse analysts often includes text of some kind, text that can be both written and spoken (or images). This implies that other literature is also relevant to consider in order to create a clear account of how this study has been conducted – literature about document analysis and interviews, for example (Howarth 2000). I will begin by outlining the premises of discourse analysis before presenting the material and discussing how I went about analyzing it.

Doing discourse analysis

Why use discourse analysis? Howarth claims that the objective of using discourse analysis is "the production of novel and plausible interpretations of selected cases and problems" (ibid., p. 142). The aim of discourse analysis is *not* to uncover "truth" or to establish causality, but rather to provide well-founded interpretations and analyses of the chosen material. So how does one do that? The instructions range from very few to relatively detailed depending on which school and/or author one consults, but they are compatible with much of what is recommended in social science research methods in general.

This openness in purpose could be considered vague, but it allows room for a diversity of studies and mirrors the ontological and epistemological points of

departure of discourse theory. Foucault was not known for methodological stringency, for example, but the way he describes the genealogical approach captures very well the motivation, process and challenges involved when attempting to engage with several decades of historical development in a meaningful and stringent way. His lack of explicit methodological guidelines is clearly not a reason to avoid being methodologically rigorous.

Fairclough places more emphasis on analysis of small rather than large amounts of material – but he also makes room for those of us who instead want to analyze a whole corpus or larger body of material in broader terms (Fairclough 2003). The issue of how to select samples for more detailed analysis may be more challenging with a large amount of material, but nevertheless the process is much the same. Discourse analysis is, according to Fairclough, suited for interdisciplinary undertaking in the sense that several perspectives (from history, sociology or political science, for example) may be required in order to adequately account for the different levels in his definition of discourse. In the same way, I would argue, there is no reason why methods from all of these areas cannot be used.

A form of *open coding* is a common place to start in analyzing text, identifying things like conflicts, repetitions, misunderstandings or sudden shifts of style. This process assumes some form of prior knowledge about what might be reasonable to expect of this particular material (ibid., pp. 232–238). There are more detailed guidelines available that distinguish between, for example, vocabulary, grammar, cohesion and text structure. Though these might be excellent help in cases with less material, I find the more general advice to be sufficient as guidelines in the analysis in this case. These are used together with complementary methodological literature on document analysis and interviews. I do pay attention to vocabulary and also highlight some aspects of *intertextuality*, for example, but the general focus is on the development and change of ideas, discourses and imaginaries in the texts covering several decades so the level of detail in my analysis of each text may not be as dense as Fairclough might prescribe.

The accounts of the social and discursive practice in this study are necessarily limited. I do not directly study the context in which the texts are produced for instance, nor do I investigate different receivers' processes of reading and interpreting texts. I start in the social practice by discussing the politics and theory of research aid (in the introduction), and then discuss the discursive practice (about Sarec – in previous research and also in the empirical chapters) together with a closer immersion in the analysis of the central texts (in the empirical chapters). The concluding chapters tie back to the discursive and social practice levels more explicitly by interpreting what the analysis of texts might imply in relation to the Swedish case and the politics of research aid in general.

Material

The annual reports and policy and methods documents are central to my analysis. They have been chosen as central because they are public documents explicitly aimed at informing various outside stakeholders and other instances about what the research unit did, why and how. The annual reports were also published

consistently, something that enables relevant and interesting comparison over time. Complementary and also very important materials are interviews with former directors and key informants as well as certain evaluations. I focus mainly on the large, all-encompassing evaluations/similar; they provide an external view of research aid activities at 10, 20, 30 and 40 years of existence. They are comparable in their size and/or significance and provide interesting contrast. Central and complementary texts comprise around 84 documents. In addition, in order to gain background knowledge, I have also consulted state investigations and parliamentary records/government documents, some smaller evaluations, reports, brochures, conference papers, position papers and public debate for each decade. These materials have been included because they were referred to in the annual reports or because they in other ways tie into central issues concerning the context of that particular decade's policy.

The documents

The annual reports were produced at Sarec and Sida and sent out to various stakeholders like the Swedish government as well as universities in both Sweden and in low-income countries as a way to spread information about the activities being undertaken and results being achieved. The reports were also made available at Sida, and in the 2000s, they were (along with other documentation like evaluations) made available on Sida's website. Up until 2005, they were generally between 40 and 80 pages long and their layout, content and level of detail concerning undertaken activities vary over time. For example, in certain years the introduction is rich in critical reflection, essay-like and signed by the director, and other years the introductions are short, formal and anonymous. All of the annual reports are in English. Between 1975 and 1995 and 1998 and 2005, annual reports specific to research aid were produced. Documents of similar character available for 1995–1997 and 2005–2020 are Sida's general annual reports (which contain far less detail on research specifically, compared to the earlier years), parliamentary records, Sida country reports and various evaluations.

Several evaluations of Swedish research aid programs and projects were produced each decade, both small and large. The evaluations were mainly externally commissioned, meaning that either individuals, teams of consultants or researchers conducted them. Some are thematic (covering certain prioritized themes/areas or projects, for instance support to social sciences or biotechnology); some were methods-related (covering for example support to international organizations or regional research networks); and some were country or region-specific.

The interviews

I conducted 14 interviews in total between 2009 and 2022, including all the former director generals of Sarec except Karl-Erik Knutsson (the first director),

who passed away in 2002. These former directors are Lars Anell (director during 1980–1983), Bo Bengtsson (1983–1991), Anders Wijkman (1992–1994), Johan Holmberg (1995–1996), Rolf Carlman (1996–1999), Berit Olsson (1999–2008), Tomas Kjellkvist (2008–2010), Anders Granlund (2011–2013) and AnnaMaria Oltorp (2014–2021). I have not made explicit reference to all the interviews in the book, but they have all contributed to my understanding of each period. I use "directors" for short. The decision to interview mainly Sarec directors was based on the assumption that they had a broad understanding of the policy and activities of the organization. This kind of perspective is a good match with my research questions, which are also concerned with a relatively general level. All the former directors had/have extensive experience of foreign aid, both as experts and in managing positions, often both within Sweden and internationally. I also interviewed four key informants. One was Professor Emeritus Björn Hettne, who worked with Knutsson in the 1970s and wrote the appendix on development theory to the SOU 1973:41 as well as a number of subsequent Sarec publications on development theory. Another key informant is Gun-Britt Andersson, who was chief of staff during the time when Knutsson was director. Two additional key informants were Anders Troedsson, who worked with the research portfolio at the Swedish Department for Foreign Affairs between 2017 and 2022, and Karin Schmekel, who worked with development research at the Department for Education and Research between 2010 and 2020.

The interviews were semi-structured, between one and two hours long, and conducted with largely the same type of questionnaire. The questions I used were partly based on my evolving research questions, and to a lesser extent adapted to the themes and issues of relevance to the time during which the person in question was director. I attempted to create a level of comparability with the interviews by using the same set of questions, but they varied slightly from interview to interview. The interviewees were informed beforehand about the main themes of the interview as well as the fact that I wished to record the conversation. I also informed them that I would let them check any quotes or other references to them that I intended to use in the book. All the informants agreed to be identified with their names

The purpose with the interviews was explorative and orienting. I asked questions in order to better understand research aid as a phenomenon, to understand the documents and to get the unique perspectives of each person on their time working with research aid. I view interviews as co-produced accounts. In other words, the interviewer and interviewee both contribute to the account that is the result of the interview – I am not simply objectively "mining" the minds of the interviewees (Kvale & Brinkmann 2009, 2015). As with the documents, I consider the former directors to be "discursive agents" – they contribute and relate to the construction of ideas about research for development. They align, reinterpret and reproduce certain discourses. As leaders of a boundary organization, they had to answer to principals and patrons on both the political and scientific "sides". As the material illustrates, this navigation can be quite difficult and involves a fair amount of argumentation.

Working with the material

The methodological approach in book has been abductive: I have switched between inductive and deductive approaches. The process has been characterized by simultaneous production and analysis of both theory and empirical material, where trial and error with ideas, materials and hypotheses eventually led to increased levels of abstraction (cf. Berner 2005; Peirce 1992; Shanin 1972). In this process, I found *sensitizing concepts* to be a useful way of identifying the relevant aspects in my material. Sensitizing concepts can be considered "interpretive devices" that enable starting points and inform the formulation of the research problem (Bowen 2006, p. 16). I thought about things related to *capacity building*, *development theory*, *research cooperation* and *aid* for example. My draft research questions guided my reading initially, but I put them aside after a while and tried to just read, take notes and code more openly. Things that "stood out" could be the use of metaphors, the appearance of "new" concepts (like when the use of *third world* became replaced by *developing* countries, for example) or references to scientific literature or specific theories (cf. Ryan & Bernard 2003). The exercise of coding entails interpretation and eventually more detailed categorization. This process is very similar to, and compatible with, the kind of analytical process that Fairclough recommends. After the first round of coding, I organized my notes more clearly into categories. Categories can be of very different kind – descriptive, analytical or interpreting, for example – and my initial categories were very descriptive and became more analytical in a later part of the process. I worked similarly with the analysis of both the documents and the interviews, although the types of materials clearly differ in how they come about, as discussed earlier.

Most of the documents from the first two decades, and many of those from the 1990s as well, were only available in paper format, and hence I have done all the work with these "manually". I found that my *central* material was a manageable amount to analyze without the help of text analysis software. In those central documents that *were* available electronically, I still did most of the work manually, both because I wanted continuity in my method and because I just found it easier to analyze them this way. Having documents electronically searchable, however, of course made it easier to *find* many of them (in Sida's publication database, for example). With documents in paper format, I was depending on them existing in the university library catalogues, for example, with relevant registered searchable terminology. The use of electronic word searches was mainly used in the documents analyzed for Chapters 7 and 8 mainly, which was helpful since the number of documents available grew exponentially with time. The 2000s had a great amount of secondary material that provided interesting context, and in order to cover as many of them as possible, it was good to be able to do some elementary "mining" of them. For Chapter 8, I used NVivo to help categorize the material and identify keywords and code, but the steps were the same as for the manual process (Maher et al. 2018).

Identifying discourses

Theories about development and knowledge production are at times actively "enrolled" in the texts. With *development theory*, I mean ideas about how countries change, and *should* change, over time and why – ideas that are central to how foreign aid is designed and implemented. *Knowledge production theories* encompass ideas about how knowledge plays into this change, including scientific research. Discourses have been labeled, described and analyzed using concepts embedded in the empirical material, which can often be coupled to the type of theories described earlier.

The work process concerning identification and naming of discourses has been closely related to the analysis in general. I have searched for both recurring patterns and discontinuities of different kinds by reading and re-reading documents and interview transcripts, taking notes and processing in various steps. As my research questions and theoretical positioning and tools became more defined, I started thinking about how these patterns and discontinuities could be explained, understood and presented in relation to the bigger context of each decade, nationally and internationally. A process of layering occurred where I piece by piece tried to understand what certain variations in definitions in the documents could mean in relation to development theory trends and research policy ideas, for example. What views of science and technology did they contain and how were they made visible?

My understanding of different development theories or theories of knowledge enabled me to identify patterns of reasoning that reminded of one theory or another. These observations were then cross-checked with secondary literature, the interviews and other documents. I may, for example, have gotten the impression that a certain argumentation surrounding bilateral cooperation was in line with a linear view of innovation, or that it straddled two very different theories at the same time. I would then check whether this was a reasonable interpretation and specify what I saw by triangulating several materials and discussing with colleagues, eventually providing a well-anchored analysis. I also questioned what else it could mean and tried to provide alternative interpretations, which of course meant that the analysis changed a number of times. Looking at "the whole" also led to adjustments: my understanding and portrayal of the 1970s were improved when I better understood the 1980s, and so on.

Although one must choose an analytical focus that allows for clear arguments, using a genealogical approach is helpful for avoiding simplification where the material clearly mirrors diversity and complexity. Is the policy development to be interpreted like the competition between two or more major separate discourses, or is it one discourse with many branches that share the same roots? Asking questions like these forces a testing of the categories one develops. Although the book illustrates the diversity of research aid policy, it is of course not possible to account for all the variations and continuities in the policy over time.

Relatively late in the work I decided to use *objects* to follow and discuss the most central concepts to my research questions in a slightly more abstract way. Objects, as discussed above, are central building blocks of discourse. *Development*, for example, is a central object. How is development as an object constructed in relation to research aid? Is it economic development, is it social development, capacity building or something else? *Research capacity* is another central object; and together these different constructions have consequences for the characteristics of research aid discourses. The same objects can be defined differently by different discourses, meaning that though *building research capacity* may be a central goal in all the decades of Sarec's existence, its meaning evolves, and in that way it is possible to say that the discourses also change in character.

In line with this kind of reasoning, one might call discourses *universalist* or *localist*. This is a simplification, no doubt, but their generality also allows for discussion of the heterogeneity and complexity in the policies. My categorizations are a construction based on different theoretical perspectives as well as the material studied, a way to analyze the ideas through a certain logic. The construction of objects differs during one and the same decade – the discourses overlap and exist side by side. I do not think either discourse necessarily exists in "pure" form. People engaged in research aid would not necessarily explicitly align themselves to only one side of the ideational spectrum, for example. Diversity and contradictions are to be expected, but it is nonetheless productive to highlight some of the possible influences in policy developments.

Validity

The main object of study is policy and how the aid actor chooses to describe its task, principles and methods in various documents and in interviews. Regarding the policy documents, I am well aware that what ends up on paper, in an annual report for example, is a relatively clean version of the actual real-life diversity of opinions and interpretations in an organization. It is also reasonable to expect that written policy reflect this diversity to some extent, which can result in contradictions. Nevertheless, the contents written down on paper can reasonably be seen as an expression of will and direction of Sarec as a state agency.

What I am doing is constructing one specific type of interpretation of my chosen material. The texts, people, agencies and universities are "out there" and continuously constructed and interpreted repeatedly and in different ways by different people in different contexts. I have made an effort to include a diverse array of materials as well as secondary literature in order to provide a nuanced picture of Sarec's policy development. Studying the subject with different materials and methods increases the credibility of my interpretations. I have aimed at capturing the diversity of the material, but there are likely issues that I have missed that would have been interesting to include. I do not believe that these issues would render my analysis incorrect in the sense that I am identifying relatively general tendencies.

One may question the choice to focus mainly the textual representations of policy, since it does not say so much about the effects of policy. I could have for example conducted an ethnographic case study in a low-income country university instead. That, however, would have required me to focus on a shorter time-span and a narrower part of the research cooperation policy. This is something I might be able to do later on. My conviction is that the heavier focus on policy development is interesting and relevant – particularly when applying a longer historical perspective. Analyzing how the organization chooses to publicly portray itself, its task and choices of methods over time can result in the identification of patterns and dilemmas that can then be contrasted with other types of materials. The policy material was rich and interesting and relatively easily available. The memories of directors from the early periods may in some senses be considered less reliable than the memories of directors who were responsible more recently. This might be the case, but the early directors may have been able to highlight different aspects with the benefit of hindsight. All the interviewees have provided invaluable input in different ways, something that I think has been able to be put to use in the book. A deeper focus on documents complemented with input from the interviews is priority-wise a compromise that allows for both depth and width. Each type of material added to my understanding and ability to see things from different perspectives. Together, I believe these approaches can result in a useful and interesting picture of how research aid policy has developed and changed in the last 50 years.

References

Bäckstrand, K., & E. Lövbrand (2007). Climate governance beyond 2012: competing discourses of green governmentality, ecological modernization and civic environmentalism. In Pettenger, M.E. (ed.) *The social construction of climate change: power, knowledge, norms, discourses*. Ashgate Publishing. doi.org/10.4324/9781315552842

Berner, B. (2005). *Att skapa och analysera ett material: erfarenheter från fältet*. In Olofsson, G. (ed) *Samhällsvetenskapens hantverk*. Arkiv förlag.

Bowen, G.A. (2006). Grounded theory and sensitizing concepts. *International Journal of Qualitative Methods*, 5(3). doi.org/10.1177/160940690600500304

Braun, D., & Guston, D. (2003). Principal–agent theory and research policy: an introduction. *Science and Public Policy*, 30(5), pp. 302–308.

Brinkmann, S., & Kvale, S. (2015). *InterViews: learning the craft of qualitative research interviewing* (3rd edition). Sage Publications

Chouliaraki, L., & Fairclough, N. (1999). *Discourse in late modernity: rethinking critical discourse analysis*. Edinburgh University Press

Collier, D., Hidalgo, D.F., & Maciuceanu, A.O. (2006) Essentially contested concepts: Debates and applications. *Journal of Political Ideologies*, 11(3), pp. 211–246.

Cornwall, A. (2007). Buzzwords and fuzzwords: deconstructing development discourse. *Development in Practice*, 17(4), pp. 471–484.

Dreyfus, H. L., & Rabinow, P. (1983). *Michel Foucault: beyond structuralism and hermeneutics* (2nd edition). University of Chicago Press.

Fairclough, N. (1993). *Discourse and social change*. Polity Press.

Fairclough, N. (2003). *Analysing discourse – textual analysis for social research*. Routledge.
Fairclough, N. (2009) *A dialectical-relational approach to critical discourse analysis in social research*. In Wodak, R., & Meyer, M. (eds) *Methods of critical discourse analysis* (2nd ed.). Sage Publications.
Fairclough, N. (2010). *Critical discourse analysis – the critical study of language* (2nd ed.). Longman.
Foucault, M. (1977). *Nietzsche, genealogy, history: language, counter-memory*. Basil Blackwell.
Foucault, M. (1972). *The archaeology of knowledge and the discourse on language*. Pantheon Books.
Galis, V., & Hansson, A. (2012). Partisan scholarship in technoscientific controversies: reflections on research experience. *Science as Culture*, 21(3), pp. 335–364.
Giere, R.N. (2006). *Scientific perspectivism*. University of Chicago Press.
Graham, L.J. (2005). *Discourse analysis and the critical use of Foucault*. Australian Association for Research in Education.
Guston, D. (1999). Stabilizing the boundary between US politics and science: the role of the office of technology transfer as a boundary organization. *Social Studies of Science*, 29(1), pp. 87–111.
Guston, D. (2001). Boundary organizations in environmental policy and science: an introduction. *Science, Technology, & Human Values*, 26(4), pp. 399–408.
Howarth, D. (2000). *Discourse*. Open University Press.
Jasanoff, S. (2006). *States of knowledge: the co-production of science and the social order*. Routledge.
Jasanoff, S., & Kim, S.H. (2009). Containing the atom: sociotechnical imaginaries and nuclear power in the United States and South Korea. *Minerva*, 47(2), pp. 119–146. doi.org/10.1007/s11024-009-9124-4
Jasanoff, S., & Kim, S.H. (2013). Sociotechnical imaginaries and national energy Policies. *Science as Culture*, 22(2), pp. 189–196. doi.org/10.1080/09505431.2013.786990
Jasanoff, S., & Kim, S.H. (eds) (2015). *Dreamscapes of modernity: Sociotechnical Imaginaries and the Fabrication of Power*. University of Chicago Press. doi.org/10.7208/9780226276663
Jörgensen, M., & Phillips, L. (2002). *Discourse analysis as theory and method*. Sage Publications.
Koopman, C. (2009). Two uses of genealogy: Michel Foucault and Bernard Williams. In Prado, C.G. (ed.) *Foucault's legacy*. Continuum International Publishing. doi.org/10.5040/9781472546470
Kvale, S., & Brinkmann, S. (2009). *Den kvalitativa forskningsintervjun*. Studentlitteratur.
Loomba, A. (2005). *Colonialism/Postcolonialism*. Routledge.
Maher, C., Hadfield, M., Hutchings, M., & de Eyto, A. (2018). Ensuring rigor in qualitative data analysis: a design research approach to coding combining NVivo with traditional Material methods. *International Journal of Qualitative Methods*, (17), pp. 1–13.
McNeil, M., Arribas-Ayllon, M., Haran, J., Mackenzie, A., & Tutton, R. (2017). Conceptualizing imaginaries of science, technology, and society. In Felt, U. et al. (eds) *The handbook of science and technology studies* (4th ed.). The MIT Press.
Mills, S. (2003). *Discourse*. Routledge.
Nilsson, R. (2006). *Foucault – en introduktion*. Egalité.
Peirce, C. S. (1992). *How to make our ideas clear*. In Houser, N., & Kloesel, C. (eds) *The essential Peirce, volume 1: selected philosophical writings (1867–1893)*. Indiana University Press.

Restivo, S., & Bauchspies, W. (1997). How to criticize science and maintain your sanity. *Science as Culture*, 6(3), pp. 396–413.

Ryan, G.W., & Bernard, R.H. (2003). Techniques to identify themes. *Field Methods*, 15(1).

Said, E. W. (1978). *Orientalism*. Vintage books.

Sarec (1977). *Sarec's first year: annual report 1975/1976*.

Shanin, T (1972). *The rules of the game interdisciplinarity, transdisciplinarity and analytical models in scholarly thought*. Tavistock Publications.

Simon, H.A. (2000). Bounded rationality in social science: today and tomorrow. *Mind & Society*, 1, pp. 25–39.

Sismondo, S. (2010) *An introduction to science and technology studies* (2nd ed.), Wiley-Blackwell.

Star, S.L. & Greisemer, L. (1989). Institutional ecology, "translations" and boundary objects: amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907–39. *Social Studies of Science*, 19(3), pp. 387–420.

Stirling, A. (2009). *Direction, distribution and diversity! Pluralising progress in innovation, sustainability and development*. The STEPS Centre.

Triantafillou, P. (2012). *New forms of governing: a Foucauldian inspired analysis*. Palgrave Macmillan.

Winner, L. (1986). *The whale and the reactor: a search for limits in an age of high technology*. University of Chicago Press.

4 1973–1979
Tracing foundations

> The connexion between research … and development is just as obvious as the thesis that increased knowledge is necessary to enable man to deal with and master the situation confronting him.
>
> (Sarec 1977, p. 8)

> International and regional [*aid*] projects are sometimes used to preserve colonial influence, to establish neo-colonial dependence and to circumvent national priorities.
>
> (ibid., p. 32)

The first years of formalized research aid appear to have been eventful. There were paradigmatic clashes between academic and political schools of thought. In this chapter, I trace parts of the foundation of research aid and provide an analysis of the policy development of the first years. The chapter is partly chronological and partly thematic. Through analyzing annual reports and other central documents, I illustrate how Sarec framed their task discursively, how the relationship between science and technology, aid and development was portrayed and how program areas and modes of work[1] were seen to contribute to the goals. I identify two main discourses and discuss their foundations. The localist discourse, with its stronger emphasis on context specificity, is dominant during the first and founding years. The universalist discourse is always by its side, however, underlining the general validity of international research results and defining development in more linear terms. The concepts of boundary organization and sociotechnical imaginaries are also used in this chapter to explore what characterized Sarec's existence during its first years.

The wider social practice: a snapshot

Economic growth, industrialization and modernization ideals dominated until the late 1960s, but in the 1970s, critique against the focus on economic growth intensified. The lives of poor people had to be improved in order to able to say that development was occurring – distribution of resources became a central issue

DOI: 10.4324/9781003033271-4

in aid policy (Odén 2006; Carmody 2019). Oil prices were high and economic growth in high-income countries slowed down. Several large UN conferences took place that reflected the issues dominating development agendas, such as: the environment, world trade, food security, population, gender issues, technical cooperation, health care, housing and water. US influence as a donor was reduced, but together with France and West Germany, they still provided a majority of the foreign aid. At the same time, Japan's foreign aid grew and Canada, the Netherlands and Scandinavian countries began having more impact in aid discussions.

There was a leftist political wave for much of the 1970s after the 1968 movements and there was growing critique of the strong focus on economic growth in aid policies during this decade; poverty reduction and distribution of resources came higher up on the agenda (Odén 2006; Carmody 2019). Swedish aid was provided to independence movements in for example Guinea Bissau, Mozambique and Angola, and support was also provided to anti-apartheid movements in South Africa and Namibia. Swedish aid policy, along with that of Canada, the Netherlands and Norway, was underpinned by a "humane internationalism", according to development policy researcher Olav Stokke (1989). The motivations for Swedish aid were not only based on solidarity; solidarity-based goals focused on poverty reduction grounded in a conviction that the social and economic development of low-income countries also benefited the so-called Western or industrialized countries (cf. Berg 2021; Nilsson & Sörlin 2017). The New International Economic Order (NIEO) was presented in 1974 at a UN conference as an alternative to the Bretton Woods international economic system, which was considered by low-income countries as mostly beneficial to its founders (Stokke 1989). Towards the end of the decade neoliberal values became more dominant (cf. Nederveen Pieterse 2010).

In the period after WWII, science was considered relatively neutral politically and seen to contribute to development with limited steering (Bocking 2004). Research politics in the 1970s was affected by many of the same world events as aid politics, such as current debates on the war in Vietnam and the nuclear threat associated with the Cold War. The potentially destructive role of research was a hot topic, and demands were made to politicize and democratize science. Research politics of the 1950s and 1960s conceived of science as progress, whereas the 1970s came to be more about problem solving (Melander 2006). There were fundamental differences of opinion regarding the production and use of knowledge, including the value of scientific knowledge and rationality. The OECD produced a number of significant reports during the early 1970s that defined what was to be regarded as *relevant* research for society (cf. Eklund 2007). Problem solving was the goal, and the concept of "sector science" was used to symbolize an alliance between science and politics (Benner 2008). Benner calls this a combination of knowledge pessimism (a budding and rapidly increasing critique of science; cf. Mulkay 1979; Woolgar & Latour 1979) and steering optimism, something very clearly embraced by Sweden (Benner 2008). Issues relating to the environment and resource scarcity were becoming of increasing concern, reflected for example

by the UN Conference on the Environment in Stockholm, 1972, and the first World Climate Conference in 1979. Some of the "waves" described above can be seen in the material – sometimes very clearly, and sometimes more subtly.

Swedish research-related aid before Sarec: setting the scene

Research-related support in different forms had been a part of Swedish aid since 1952. This first type of research aid consisted mainly of large grants for stipends and to some extent also applied development research through support to various UN organizations, for instance (SOU 1973). Government bill 1962:100 – also known as the "foreign aid bible" (Odén 2006, p. 65) – stated that there were no "principal obstacles" to including support for research in aid projects as long as it was tied to practical application in areas such as family planning and nutrition. Furthermore, international organizations (such as different UN bodies) were considered more adequately equipped to conduct development research of the more basic kind (SOU 1973). In other words, the focus of aid to research in the beginning was mainly on *development research*, where the research itself tended to be conducted in high-income country settings and the results were to be applied in the low-income countries.

In 1965, an expert group involved in research policy advice was given the task of suggesting guidelines for the newly formed Sida concerning support to research. The group's suggestions were in line with those in the 1962 bill – applied research aimed at central "problem areas" could be included, and preferably within bilateral projects (SOU 1973). In addition to family planning and nutrition, farming, microbiology, biotechnology and population research were seen as reasonable areas to include, given that they were considered relevant and applicable in low-income countries. The group also suggested that Sida should establish a special cooperation committee with the Swedish research councils. The parliament discussed the role of research in development more frequently towards the end of the 1960s, and demands for a proper investigation into the issue were made several times. In 1970, Sida requested the possibility of supporting local research institutions in their bilateral aid projects and their research aid efforts then expanded in quantity and kind (SOU 1973). The focus remained mainly on applied development research, but a new kind of discussion was under way.

Research for development: the 1973 investigation report

A committee was appointed in 1971 by Cabinet Minister Sven Moberg (social democrat during a period when Olof Palme was prime minister) with the purpose of investigating issues surrounding the organization and direction of research-related to problems in low-income countries. They were asked to suggest which research areas Sweden should focus on and what mix of activities to pursue, as well as how an organization could be put together. The committee consisted of university researchers and representatives from Sida and the Ministry of Education: Nils-Gustav Rosén (previous chancellor of Swedish universities),

Sune Bergström (Karolinska Institute), Gunnar Hambraeus (Swedish Academy of Engineering Sciences), Lennart Hjelm (College of Agriculture), Ernst Michanek (director-general of Sida), Karl Eric Knutsson (Stockholm University) and Manfred Ribbing (Ministry of Education).[2] They presented their investigation report in 1973: *Research for Development* (SOU 1973). Given that the report by the committee on development research was the base on which Sarec was created, I will delve a little deeper into some parts of it as well as some of the aftermath of its circulation.[3]

The report summarizes trends in development theory and reviews Sweden's previous development research-related activities as well as those of other high-income country agencies such as Great Britain, the Netherlands and Canada. According to the authors, development-related research was beginning to yield useful results within both the social and natural sciences in the late 1960s and early 1970s, and the importance of research for development became more widely recognized. This increased recognition was partly attributed to the effects of the UN conference on science and technology in Geneva 1963 (United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas – UNCSAT).

Redefining central concepts

Detailed discussions about concepts like *development*, *underdevelopment*, *research* and *development research* introduce the main body of the report. The authors are critical of the different concepts that are used to describe the countries in question, for example the concept *developing country* (u-land, in Swedish):

> One may for example choose countries South of a certain latitude, countries with a national income lower than the world average or countries with a literacy level under a certain percentage. … Among Southern countries are South Africa and Australia. If we depart from national per capita income, Venezuela ranks higher than Italy and Ireland. When it comes to literacy, countries like Argentina and Chile are on a Southern European level.
>
> (SOU 1973, p. 24)

It can be seen as an attempt to highlight the diversity that is hidden when using such homogenizing terms. The discussion on the difficulty of finding adequate definitions continues in the report. Development, they maintain, is an "irreparably ethnocentric" Western concept "building on the perception of development as organic growth which is continuous, occurs by an inner logic, has a certain direction and implies increased differentiation and complexity" (ibid., pp. 23–24). Low-income countries are expected to follow the same stages that high-income countries have gone through, and if they do not, it is because something is missing.

The authors position themselves against these traditional, more strictly economic views of development, like modernization theory with reference to Walt

Rostow and the stages of economic growth.[4] Stage theories, they maintain, have been used to justify the imperialism of the West. They attempt to redefine development by adhering to dependency theory instead, including perspectives on power and context using the work of Samir Amin and Gunnar Myrdal, among others. The committee advocates a *structural* view of development and underdevelopment, where the inequalities in the world are seen as a result of an international system of dependencies that has centers and peripheries (ibid., pp. 22–25). *Underdevelopment* – the result of a country's disadvantaged place in a larger system of dependencies – is historically contingent and makes development very difficult, claims the committee (ibid., p. 25).

"The growing capacity of individuals, groups and nations to control their own situation and to make improvements of it" (based on their own values), therefore, is central to development according to the report (ibid., p. 25). This line of reasoning makes underdevelopment the opposite of capacity. *Capacity* was a key concept throughout Sarec's history, even though it was not mainstream in development language until the 1990s (cf. Lusthaus et al. 1999; Whyte 2004). The concept of *third world* is advocated (cf. Horowitz 1966) because it opens the possibility of a third road, independent of set stages (SOU 1973, p. 17).

The report delves deeper into the question of what research is – and what it is not. Research is divided into *primary* and *secondary* activities, where the former includes knowledge production, method development and theoretical contribution. Secondary activities refer to things such as capacity building through for example PhD education, infrastructure establishment, institution building and efforts to spread research results (ibid., p. 27). A parallel is drawn to R&D, but the committee claims that this classification builds on a *static* view of the research process that isolates basic research from applied research: "Our opinion is that the relationship between these types of research is best described from a view of research as a unified, continuous process" (ibid., p. 29).

The committee takes a stand against what they in different places call a static, linear, modernistic and economistic view of science and technology and instead supports a relational, systemic (or *structural*, as they call it) perspective (ibid., p. 29). They make a distinction between different kinds of development research – for example, that which is thought to contribute to economic growth and that which is thought to contribute to other values, more difficult to quantify:

> Within development research it is of essence that the researcher as much as possible relates their work to expected results. This does not necessarily mean a demand for strictly economic estimates. Other results which provide convincing arguments for financing of research is the development of intellectual, innovative capacity, increase in methodological competence, talent and of course an increase of the total body of knowledge.
>
> (ibid., p. 29)

The different stands taken concerning definitions and views of example development and research seems largely built on a development theory literature review

by economic historian Björn Hettne (a study that is also attached as an appendix in the committee report). Hettne maintains in his review that the debate on views of development up until then could be said to represent two approaches – the studies, which were based on a *static descriptive* perspective, and those based on a *historic structural* perspective (herein forth shortened to descriptive versus structural) (ibid., pp. 163–164). The descriptive perspective tended to result in studies that described underdevelopment through focusing on gaps or things *lacking*: economic, technological, demographic, social or psychological aspects or dimensions (lack of education or lack of capital, for example). Common solutions to these problems were increased international trade or more foreign investment, to help the countries "catch up".

The structural perspective, however, tended to study the reasons behind underdevelopment and the mechanisms sustaining these states. Many factors were considered relevant and of different significance depending on the historical situation in focus. Hettne uses a sports metaphor (from a 1972 conference, Science and the World Tomorrow) to describe the structural perspective:

> We imagine a number of commercially driven soccer teams playing in the same league. Some of them are more successful than others. They attract bigger audiences to their games and therefor get greater income. As a result, they can offer their players better training possibilities, become even more successful and make more money. They can start buying the less successful teams' best players, whereby these teams become worse and have a harder time improving their position in the league.
>
> (ibid., p. 25)

Once an imbalance has been established, goes the argument, it is difficult to break patterns and resource flows. Representatives of this view according to Hettne were Andre Gunder Frank, John Desmond Bernal and Marxist perspectives such as the dependency school and other center–periphery models. Assumptions they shared in common were that underdevelopment is to a large degree the result of imperialism and colonialism, which have been characterized by political oppression and economic exploitation (ibid., p. 160).

The committee applies this perspective to research, maintaining that the little research taking place in the poor countries at the time was largely of the same kind as in rich countries, contributing to conserving dependencies rather than being a result of independent problem identification (ibid., p. 23). This does not mean, they say, that research activities from different traditions have not taken place but rather that different historical settings have valued knowledge in different ways, and the specific "Western" science tradition (as the authors call it) has become dominant. It has, furthermore, focused not least on natural sciences and technology and has increasingly been used to serve economic interests (ibid., p. 26). As a complement, they advocate increased multi- and/or cross-disciplinary research based on an understanding of development problems as complex and in need of attention from various academic

disciplines and not primarily with the goal of contributing to economic growth. The committee argues that *capacity* – being central to development in their definition – should be one of the main goals of the research activities to be supported (ibid., p. 15).

The case the committee makes is that high income countries have a tradition where natural and technological sciences have been the model for other sciences. These model sciences have also been associated with increases in economic productivity. The committee maintains that this model should not be taken for granted, and research in low-income countries has to spring from priorities in their own context.

On a scale from *localist* to *universalist*, the committee's discourse could be labeled localist given that it is critical of certain taken-for-granted assumptions about both science and high versus low-income countries. A greater number of futures are theoretically made possible with a localist sociotechnical imaginary. Research aid policy, however, is of course placed within a larger aid discourse, which makes possible certain discussions and not others. In other words, what I call localist is relative to what are established as more traditionally accepted assumptions. For example, at the time it was still common to view the role of science and technology in development as consisting of directly *transferring* the results of high-income country development-relevant research to low-income countries based on the assumption that "Western" knowledge was universal (technology transfer). This view would, according to my reasoning above, belong to the universalist discourse.

So, what kind of research was to be supported? As mentioned earlier, the committee suggests that cross-disciplinarity is particularly relevant for development research because they claim that solutions to development problems require many different scientific perspectives as well as a problem-based approach. Furthermore, they underscore that the research should be *value-relevant*, based on the priorities of the low-income country. A certain level of normativity was therefore demanded; the "weaker" part was to be strengthened, and academic colonialism was to be avoided (ibid., pp. 29–32). In the same context, a distinction is made between different sciences with regard to how much they were considered to be affected by the researcher's values:

> No researcher can in their work rid themselves of their values, that is – ideas about desirable and undesirable within their area where he does research. Within certain sciences, this relation is so straight forward that it does not create problems, since the values are generally accepted.
>
> (ibid., p. 31)

The formulation above illustrates that some sciences were regarded as more straightforward and universal (the values are considered generally accepted). Medical science was at the time considered the least problematic since it "in its whole is based on the fundamental value of improving health status" (ibid., p. 31). This would assume that all countries agree on what "good health status"

is or, for example, that there are no commercial interests embedded in medical research.

The same reasoning is used when discussing natural sciences and technology, where value-related issues are not seen to be of consequence until *after* the researcher has done their job in the application phase. The committee holds that the issue of values, however, is constantly present in social science research given the types of questions it deals with (ibid., p. 31). This issue is raised in other parts of the report as well, such as in the context of discussing Swedish researchers and their capacity to engage in development-relevant research:

> It is necessary to distinguish between research which is general in character and generalizable and research which is completely dependent on locally given circumstances. To the former belong the majority of the natural sciences, not least the basic kind. To the latter belong the majority of the social sciences and cultural research, botany, ecology, geology, hydrology etc.
> (ibid., p. 125)

Here it is even more clearly established that there is a difference in how the sciences are perceived. With regard to the values of researchers, then, while the committee acknowledges the "situatedness" of researchers, they seem to consider it kind of a *problem* and underscore that increased cross-disciplinarity and development relevance should not occur at the expense of scientific quality (ibid., pp. 30–31). This illustrates that there is a tension between what is considered scientific quality vis-à-vis development relevance that is still very much alive in the debates about (development) research today (cf. Kraemer-Mbula et al. 2020). The committee essentially argues that development relevance is less important than scientific quality. They express an ambition to acknowledge the importance of context and local conditions – even when it comes to science – but take a step back soon thereafter.

The committee agreed that regardless of discipline and tradition, all research has in common that it seeks to "increase knowledge about – and deepen understanding of – different phenomena, as well as such principles and relationships which increase the ability to solve problems and control events" (SOU 1973, pp. 25–26). In this sense, research is seen as vital for development regardless of whether the goal is for example economic growth or improved standard of living. Which specific areas or problems to research, however, need to be independently identified in order to be relevant for the low-income country in question, and not modeled on high-income country research priorities (ibid., pp. 19–21). At the same time, the committee claims that it is important to engage in both basic and applied research based on the assumption that *scientific innovation* is dependent on both kinds (ibid., p. 34). Several kinds of research are presented as relevant for development: mapping and statistical investigations (in line with the descriptive view), thematic research (areas like tropical medicine or agricultural research) and development theory research (in line with the structural view).

Trying to fit a systemic foot into a linear shoe?

The two different and partly competing perspectives that I referred to in Chapter 3 are articulated in this founding document: the universalist discourse and the localist discourse. A number of tensions arise. The committee simultaneously sustains and tries to deconstruct what "research for development" is and should be. It is evident that adopting a localist view of development was not straightforward. The low-income countries should independently identify priorities for research instead of imitating high-income countries – but at the same time they should do this in a certain way. Even though countries are said to have different preconditions and historical context, the picture of how research works is clear – universally valid(?) – and it is also clear what is *missing* in order for development research to be able to be conducted – traces of stage theory? What the committee was saying, essentially, was that low-income countries first needed to imitate the high-income country research systems to then be able to independently prioritize which kind of development research to engage in. This could perhaps be described as a kind of *system transfer*, as opposed to *technology transfer*.

The organization-to-be

The committee suggested that the most important conditions that should steer the initiative's direction were (in order of priority): the premises of development theory, foreign aid goals, the available research capacity in Sweden and lastly the demands for international coordination. Research activities should be tied to the specific foreign aid goals of each context, and the organization-to-be was to be based on a number of *principles* such as value-relevance problem-orientation and multi- or cross-disciplinarity (ibid., pp. 133–134).

> The direction should have as its point of departure a well thought through view of the problem, nature and causes of underdevelopment so that the research, regardless of the area in which it is conducted, can contribute to breaking the conditions of underdevelopment and in the long term counteract the forces that create or maintain underdevelopment.
>
> (ibid., p. 123)

With regard to foreign aid goals (or development goals, as they sometimes call them), the report states that in order to make them concrete in each specific context, prior efforts need to be assessed with regard to their success, and the national preconditions (political, economic, sociocultural, etc.) should be taken into consideration. Situations characterized by underdevelopment, they maintain, have certain basic features in common that constitute obstacles to "the general goal of development work", things like the *inability* to:

- build new political structures;
- distribute wealth adequately to reduce poverty;

- offer meaningful occupation to a large part of the population;
- attain good balance in the international exchange between developing and developed countries;
- mobilize enough people in development efforts;
- to start effective population politics both in terms of human reproduction and of reducing the concentration of people in large cities;
- to avert human rights violations from those in power

(ibid., p. 124)

The committee puts forth that these situations are so partly because of lack of political will but also because the causes of underdevelopment need to be better understood. I will return to this, but one could reasonably claim that the identification of *inabilities* above is associated with the universalist discourse and is akin to the identification of gaps in stage theory.

The committee recommended that both long-term and short-term research efforts should be supported in order to avoid tendencies to engage only in applied research, for example. Active efforts were to be made to support social science research since it tended to be under-prioritized (ibid., p. 34). A precondition to being able to support development research at all, they maintain, is research infrastructure. In defining what kind of research infrastructure is relevant, they align themselves with the classifications that UNESCO had developed together with the Canadian IDRC and the University of Sussex, consisting of four "levels of function":

- Planning, decisions and follow-up. These functions tended to be closely aligned with government
- Coordination, support and financial issues on a national level. These functions tended to be very split up depending on the types or levels of research (different subject areas, and whether it was basic or applied research)
- All institutions which conduct the research: institutions for teaching and research, technical institutes, research and experiment institutions (sector-driven, applied research)
- The scientific and technical service functions of UNESCO. Not directly responsible for teaching or research but essential for enabling science and technology for development (such as topographical institutes, databases, museums, and innovation actors)

(ibid., pp. 44–45)

The committee aligns itself with the above, but they also add that all support to research capacity needs to be based on an analysis of countries' preconditions in relation to research infrastructure, administration and personnel. It is common, they claim, that the few researchers that exist are too aligned with problem identification according to Western academic traditions and not in tune with the social and cultural context of the low-income country (ibid., p. 46). Increasing

the amount of researchers, they claim, is something that is made difficult by the state of current research environments and brain drain to more "advanced" countries or to highly qualified positions within the country in question:

> problems which can be summarized as "external" and "internal" brain drain. Furthermore, there is a social and psychological climate which provides insufficient intellectual stimulus and which in many cases is directly innovation-hostile.
>
> (ibid., p. 46)

What they mean, more exactly, with "social and psychological climate" or "innovation-hostile" is not clear, but it is interesting to note the associations being made between well-functioning research environments and innovation. Judging from the report, innovation in this context seems to refer to the ability of low-income country researchers to contribute to the independent solution of problems by being able to conduct research on their own as well as interpret and adapt results from other research (regardless of which kind of development it is for) (ibid., pp. 46–47). Referring again to the work of the UN Advisory Committee on Application of Science and Technology (ACAST), the Committee mentions *institutional networks* as a way of conceptualizing how each "research unit" is part of a "larger integrated system, where the different components are coordinated with the purpose of guaranteeing an effective use of the research resources" (ibid., p. 47). A systemic view of science and technology is underlined.

According to the committee, Swedish researchers needed to become more familiar with development issues. International coordination of research cooperation – that is, staying informed, for example, on the work done by the UN – and working towards creating links with Swedish research and with research in (and between) the developing countries – was also seen as an important task for the organization-to-be. In general, they often underscore the importance of making sure that the research is conducted in the developing country context as much as possible, at the same time as they claim that some efforts may need to start or be built up in the industrialized country due to costs or other resource availability (ibid., p. 131).

Organizationally, the committee proposed that it be an independent development research board (*nämnd för utvecklingsforskning*). One option was to suggest that it be a research institute, but the task was considered too wide for this. Dividing the task between the existing research councils was another option, but this was rejected on the grounds that this would not satisfy the need for cross-disciplinarity. Adding a new research council would not cover the other tasks required by the organization-to-be (ibid., pp. 134–135). Instead, an independent board was recommended, to operate under the Ministry of Foreign Affairs, funded by the foreign aid budget (to be 5% of the total annual budget). It was to have a board of directors, a secretariat, a secretary general and an administrative director. Its board of directors was to be composed of both researchers and representatives from the foreign aid administration and public interests. Their

task would be to act proactively, judge applications (a research council function) and provide advice. They were to have an international advisory group tied to them to be composed of different representatives depending of the nature of the advice sought, and they could create temporary Swedish consultative researcher groups as well.

The committee stated that the development research board was to be a complement to Sida as well as to the existing research councils. While Sida supported research more as a practically oriented part of other ongoing aid, the organization-to-be would focus on supporting research more long-term. This did not imply that the two should not overlap in tasks; this was in fact encouraged when deemed necessary (ibid., p. 140). The same principle was to be adhered to in relation to the research councils, the tasks overlapped to some degree, and cooperation was encouraged.

Economists protest: a battle to define the problem and its solution

Several of the recommendations by the committee could be interpreted as a critique of both foreign aid and research at the time since they proposed a number of new definitions and approaches. While the report received mostly positive response from the agencies and organizations to which it was sent for consideration (cf. Prop. 1975), it led to some clashes of opinion in the Swedish journal *Economic Debate*. The definitions of *development* and the appendix about development theory were the main issues discussed.

The committee report's definition portrays levels of development as relative and dependent on past and present structural options and restrictions. It does not in itself seem to prescribe what kind of development is desirable, and it does not lift any specific aspect (such as income, education or access to health care) as central indicator of development as more central than others. Economists Bo Södersten and Mats Lundahl (at the time based at the universities of Lund and Gothenburg respectively) criticized the report and the committee members, claiming that the economic discipline dominated development research because economics *is* central to development. They stated that the report did not adequately acknowledge this and that too much time was spent, for example, on defining concepts like *underdevelopment* in terms that seemed to them like "straining mosquitoes and swallowing camels" (Södersten & Lundahl 1974a, p. 115). Furthermore, they wrote:

> To say that a fundamental aspect of the development concept is to be in charge of one's own situation and being able to improve it is the same as saying that development is about the ability develop. A more futile definition of development is hard to imagine.
>
> (ibid., p. 120)

Instead, they maintained, it should have focused on the most important challenges for development research to solve (such as low production capacity and income

inequality). In other words, Lundahl and Södersten suggested that the committee did not approach their task appropriately. Furthermore, they claimed that the development theory review in the report (by Björn Hettne) was faulty and did not present an up-to-date picture of development research, especially not of development economics. They argued that Hettne presented out-of-date "grand theories" rather than the kind of theory and application that were relevant at the time and that he did not have enough evidence to state that development research was becoming more cross-disciplinary. They did not think that it was necessarily a good idea with more cross-disciplinarity, either, arguing that specialization more often allows for the required depth (ibid.).

On the topic of the proposed organization, Södersten and Lundahl agreed that that independence was a good idea, stating that critical and creative research needed a non-bureaucratic atmosphere: "Bureaucracy in research contexts almost always turn out to be a purpose of its own: good coins are out crowded by bad, seeds are replaced by shells" (ibid., p. 121). They clearly did not hold Sida in very high regard, but they believed Sida and the board would be able to have fruitful cooperation (as well as conflicts). They also underscored the importance of including scientifically competent people to the secretariat. They ended their article by stating that the lack of economic perspectives in the report was bizarre.

Hettne and Karl Eric Knutsson labeled their critique as lacking in nuance and too narrowly focused on economics: sweeping and contradictory (Hettne & Knutsson 1974). They rejected Södersten's and Lundahl's claim that economic research was not given attention in the review of development theory since a third of the references in the review were to economists. They also maintained that the critique concerning cross-disciplinarity was "odd", and they presented some examples of economists who explicitly pointed out the need for broader perspectives of and approaches to development problems (Gunnar Myrdal, Samir Amin and Hans Singer). Södersten and Lundahl countered by calling the examples "peripheral", though they also concurred that cross-disciplinary efforts could sometimes be appropriate (Södersten & Lundahl 1974b). They argued that Hettne and Knutsson did not understand the critique and that the diversity within economic research on development was much wider than the committee report showed, they wrote, asking for continued investigation into the issue (Södersten & Lundahl 1974b).

Another article on the subject appeared the year after, by economist Arne Bigsten (then at Gothenburg University). It further questioned the definition of development that the committee report put forth. He argued that it was unnecessary for a definition of development to include an explanation of the *causes* of development. He questioned the decision to include *power* (ability to control one's own situation) as a variable, claiming that the definitions of development provided by economics were more useful (distinguishing between growth, economic development and development for example) (Bigsten 1975). No reply was provided by Hettne or Knutsson, but all these articles were filled with harshly phrased remarks – illustrative of a major clash in views about what was considered central to development at the time.

The first director of Sarec passed away in 2002, so his perspectives cannot be analyzed here in the same manner as subsequent directors. I have, however, interviewed Björn Hettne given that he wrote the appendix on development theory in the committee report and participated in the subsequent debate. During our interview, I asked him about the discussion on development theory in *Economic Debate*, and part of his reflection was that it was a paradigmatic war during a time when tough exchanges were more common:

> It was very much the spirit of the time – very polemic after 1968 – some sort of radicalism in the air. The fact that I discussed Marxism and the bourgeoisie in the beginning isn't something one would do today – and not before then either – but at the time it was legitimate. … The debate was harsh and polemic.
>
> (Interview Hettne 2013)

Hettne goes on to say that it was not uncommon for people from different disciplines and perspectives to get quite furious during joint seminars, but that the international research trends at the time provided support for the findings put forth in the committee report. Another point of controversy was the political decision of the proposed independence of the organization-to-be. Hettne stated that the committee was very eager to avoid Sarec becoming a mere extension of Sida:

> We pursued very strongly that it was to be an independent organization with intellectuals who themselves were to prioritize what was worth prioritizing … and that it should not be subordinate to regular aid.
>
> (Interview Hettne 2013)

This is a clash between different discourses on both development and knowledge. The issue of cross-disciplinarity could be seen as one that captures major aspects of this clash. The economists adhered to the idea that disciplinary research, in this case economics, was most apt to deal with development. Development is to large degree about economic growth in this view, even though contexts can vary somewhat. The anthropologist and the economic historian, on the other hand, believe that contexts vary much more and that development is a multidimensional problem that is best approached through the cooperation of several disciplines. Both, however, believe in modern science as a solution to development problems. The exchange in economic debate and the interview with Hettne illustrate some of the intense boundary work that was going on at the time. How much influence should politics have over science, and who *within* science should decide which kind of research was relevant to support as a state agency?

Sarec takes form

The question of the organizations' independence divided some of the organizations to which the report was sent for comments. Some believed that independence was

essential for research-related aid while others thought it should remain closely tied to Sida, or at least until the impending investigation regarding Swedish aid was finished. This division was also clear in parliament on April 23rd, 1975, when the decision to instate a research aid organization was put to the vote. A majority of the parliament were positive to the instatement per se, but the conservative opposition was against the proposed independence (cf. Kjellqvist 2013). The division of opinion on the issue resulted in a tie of 158 to 158 (three did not vote). The vote then had to be re-done and resulted in Sarec becoming a temporary organization – awaiting the completion of an investigation on the organization of Swedish foreign aid (cf. Prop 1975). During the years 1975–1979, Sarec remained an advisory body to the government and Sida. During this time, Sida remained responsible for making major budgetary decisions. In 1977, however, responsibility for budget decisions concerning development research in Sweden was given to Sarec. Decades later, Nilsson and Sörlin (2017) argue that while this independence was deemed important for the ability of Sarec to develop its particular model, it also entailed a separation from the wider arena of research in Sweden.

Interpreting the task: the first annual reports

The government underlined two main reasons why they considered it important for Sweden to support development research and research cooperation: 1) the poor state of research capacity in Third World countries (as low-income countries were then referred to) and 2) the need to improve Swedish knowledge and understanding of low-income countries. In the beginning, the general *mandate* of Sarec was to "to promote research which can support the developing countries[5] in their efforts to achieve self-reliance and economic and social justice" (Sarec 1977, p. 18).

Furthermore, the *purpose* was to "strengthen the role of research in development cooperation and to ensure that scientific competence is maintained when research projects are prepared and scrutinized" (ibid.). Sarec was also to advise the government and aid agencies about this research and cooperate with research councils and research organizations in preparing projects. Their task, in other words, encompassed several levels – to strengthen research capacity in low-income countries and mobilize Swedish researchers in this effort, to strengthen development research in Sweden and to advise the Swedish government and Sida on issues relating to research. The task of Sarec was also related to the general aim of Swedish development cooperation, which was to "assist developing countries in the efforts to achieve a development which satisfies the basic needs of the people: for housing, clothing, education and human dignity" (Sarec 1979, p. 25). In the process of interpreting the goals in the first annual report, Sarec summarizes the overarching focus of its operations for the first decade:

> Sarec attaches priority to measures that will help the Third World countries to increase their own ability to carry out research and to accumulate knowledge needed for their development, and to mobilise Swedish researchers and

> research institutes in support of this endeavour to increase domestic capacity in Third World countries.
>
> (Sarec 1977, p. 1)

When Sarec became an independent government agency in 1979, it received a *decree* that did not differ significantly from the guidelines that had been in place previously (Regeringskansliet 1979). Throughout the first decade, it was often emphasized that it was Sarec's task to promote research that would "support the third world countries in their effort to achieve self-reliance, economic and social development and equality" (Sarec 1977, p. 18). These statements reflected very clearly the idea that research aid should be "value-relevant". Similar statements were made regarding the importance of context-specific support based on the demands of the low-income countries.

The term *capacity* is central from the beginning in relation to Sarec's task, and *research capacity* is the most frequently used term. Capacity shows up in different variations in the annual reports: domestic research capacity, domestic competence, innovative capacity, absorption capacity, research capability, national research capacity, endogenous science and technology capabilities and institutional research capacity. It is defined in Sarec's first annual report and based on the definition by the Development Research Committee from 1973. This definition reappears throughout the first two decades, albeit with slightly different wording. Research capacity was seen to involve the following abilities:

- Ability to identify independently and define research tasks and their relation to the development problems and the development work
- Ability to plan and to carry out important research or to commission and direct such research which cannot be successfully tackled with domestic technological, financial, and human resources
- Ability to assess, choose, and adapt research results for domestic application
- Ability to offer the country's own research workers and environment that is sufficiently stimulating to counteract migration to technologically advanced countries
- Ability to disseminate and apply research results
  Ability (in terms of finance and staff) to utilize opportunities offered by international research cooperation and to take an active part in such cooperation

(Sarec 1977, p. 15)

This attempt at defining what constitutes research capacity illustrates the complexity of the task at hand. Efforts were made to further specify and break down the purpose and overarching goals. This seems to have been easier to do concerning the support to Swedish development research since this measure consisted of funding research applications using the same process as the other Swedish research councils. The reasons for supporting international research

organizations were also quite clear, given that this kind of support had already been provided for over a decade when Sarec was created. The goals for support to low-income country research capacity, however, remained relatively vague for several years.

The early years included longer, critical and essay-like introductions situating the task of Sarec. Karl-Erik Knutsson was the first director of Sarec, an anthropologist, who also headed the committee on development research. Knutsson writes in the 1976/77 annual report of the need to see both development and research in a more holistic way as opposed a series of separate compartments:

> One of the most common and at the same time one of the most dangerous misunderstandings prevailing in the industrialized countries is that reality itself is only the sum of a number of separate and specialized "sectors". One is the "market" which is left to economists to study; another is the political sector (political scientists). Religion and law are two other such compartments in the Reality Room. … And if we, within the Western type of society which still is the dominating producer of science, scientists and scientific modes of thought – look outside the research community, we find the same pattern.
>
> (Sarec 1979, pp. 11–12)

The essence of what he is saying seems to be that the whole is more than the sum of all its parts and that the dominance of "Western" science is problematic because it is a proponent of sectorization and compartmentalizing. He goes on to claim that the negative consequences of these traits increase when research and researchers produced within this system are transferred to a different context – making it more likely that research is modeled on Western priorities (imitation) and not development-relevant:

> In combination, such factors [*imitation processes and lack of development relevance*] together with dominant political and economic forcers – have generated a tremendously powerful transnational intelligence industry, of which the Western research community and many of its branches in the third world are integrated parts. As many other multinationals – it imports raw material not least from the third world. Huge amounts of raw material in the form of students are processed and transformed into "intellectual Barbie-dolls" and re-exported, thus guaranteeing the successful continuation of center dominance and mimetic development strategies.
>
> (ibid., p. 13)

Knutsson makes it clear here that he adheres to the definition of development that is advocated in the committee report from 1973 – a system of dependencies where the "Western" centers continue to dominate over the "Third World" peripheries. It is representative of the character of annual reports of the first few years – dominated by the localist discourse that at the time aligns itself with

dependency theory and seeks to change the center–periphery relationships by strengthening local research capacity.

Modes of support: old and new priorities

The Committee on Development Research had recommended that research efforts be problem-oriented, multidisciplinary and value-relevant; that is, aimed at changing the conditions of underdevelopment (Sarec 1977). As with the task and goals, the program, sectors and methods of work of Sarec became more clearly defined towards the end of the first decade. In the following section of the chapter, I will present the different ways in which Sarec's annual reports portrayed their programs and methods of work and how priorities developed between 1975 and 1979.

During the first couple of years, Sarec worked on guidelines for research aid. They divided low-income countries into three groups with the purpose of identifying need for collaboration and aid. It was stated that no country belonged definitely to one category, but the first group comprised countries that had no national policies dealing with science and technology for development. The second group of countries had development-oriented research policies but lacked resources. The third group of countries already had a certain level of development-relevant research capacity. Countries with characteristics like those in the second group were identified as having the best preconditions for Sarec support (ibid., pp. 26–27). This entailed that, depending on how well developed the research capacity of a country, university or research area was, the support would be designed to match the need at hand: to either strengthen basic capacity through, for example, research training or to focus more directly on cooperation with development relevant results as the main goal.

During the 1970s, the annual reports relatively often highlighted the importance of ensuring that the cooperation was to be based on national priorities of the low-income country. Certain important sectors (in addition to or instead of nationally defined priorities) were nevertheless identified quite early on:

> Sarec has established no special priorities among the sectors to which support for research is to be assigned. It is not possible to decide in advance and as a general principle whether to support a given branch of forest research or health research. … However, from the analysis of the developing countries' situation and in the effort to promote a development which satisfies basic human needs, certain sectors emerge as vital for research.
>
> (Sarec 1979, p. 30)

The vital sectors were 1) health and nutrition research, 2) agriculture and rural development, 3) technology and industrialization and 4) development theory and development economics. The first two sectors were given most funds during the first decade. How these sectors emerged was not discussed in detail. One could argue that the insistence on basing cooperation on national priorities is

part of the localist discourse and the valuing of the "vital sectors" is more linked to the universalist discourse. The former assumes that knowledge cannot be legitimate or useful without being locally prioritized (and produced), while the latter believes that knowledge can be relevant irrespective of the origin. The quote above exemplifies clearly how the two lines of argument coexist in Sarec's policy.

International research programs

This is the oldest form of support. Direct financial support was provided annually, for example to the Consultative Group on International Agricultural Research (CGIAR) for research on increasing food production and animal husbandry and to the World Health Organization (WHO) for research on human reproduction and the development of better contraception.

Sarec's rationale for supporting research in international organizations was inherited along with the method of support itself; it made good use of scarce resources, and the results would benefit the countries that were lacking in research capacity. The support was furthermore assumed to result in more generalizable findings, and it would facilitate undertaking research in areas that may not be considered politically acceptable in some countries (cf. Sarec 1977). The reasons for supporting international organizations were universalist in the sense that the research findings were considered generalizable and applicable to many, if not all, low-income countries. Sarec agreed with the "inherited rationale" but was also of the opinion that it could in fact *inhibit* the development of national research capacity in low-income countries:

> International and regional projects are sometimes used to preserve colonial influence, to establish neo-colonial dependence and to circumvent national priorities and country programmes. They may have the effect of delaying the build-up of national capacity, contributing to the emigration of researchers and distorting national investment.
>
> (Sarec 1977, p. 34)

Although the international research programs were considered important and received a considerable portion of the budget throughout the entire period, critique of their work methods is present in almost all the annual reports. This is an expression of the localist discourse. In the late 1970s, Sarec consistently encouraged increasing the involvement of low-income country researchers in the processes of planning and implementation of research projects in the international organizations.

Sarec evaluated the international programs during the late 1970s with the assistance of low-income country researchers. They concluded that the research by the international organizations was of high quality but often lacked relevance in relation to the contexts of specific low-income countries. Furthermore, Sarec maintained that research results from the international research organizations were often difficult to absorb and use due to weak national research capacity in low-income countries. As a result of these conclusions, Sarec decided that more

resources should be dedicated to strengthening national capacity in low-income countries (Sarec 1981). Support to international research organizations nevertheless remained the largest budget post during the first decade.

Bilateral research cooperation

Bilateral cooperation was direct support to cooperation between universities in low-income countries and Sweden's main aim was to increase the research capacity of the low-income country. Support in the beginning was provided mainly via research councils but also though support to projects and institutions, depending on the existing research infrastructure. The agreements made during the late 1970s were with Sri Lanka, Tanzania, Vietnam, Zambia, Ethiopia, Botswana, Guinea Bissau, Mozambique, India and Cuba (UD 1985). Most of the countries belonged to the category that Sarec determined as having very little research capacity at the time. The support was not intended for long-term projects to begin with because they were seen to risk creating dependencies (Sarec 1979). At the conference of science and technology for development in 1979, low-income countries demanded more long-term support. Sarec had changed position on the issue around the same time because it was seen as necessary to cooperate for longer periods of time in order to be able to build capacity.

Much of the cooperation was budding during these first years and consisted of visits, discussions and planning. Project support, for example, was provided to a cooperative archaeology project between University of Maputo in Mozambique and Stockholm University. Support was also provided to the Tanzania National Scientific Council (TNSRC), which began by establishing a center for scientific documentation and information with the help of a Swedish expert. Research training cooperation with University of Dar es Salaam and University of Lund was also going on (cf. Sarec 1979). This mode of support was taking form at the time so the activities undertaken were in part experimentation. The intention of it, however, was illustrative of the localist discourse.

Gun-Britt Andersson, who was chief of staff during this decade, recalls having to defend Sarec's focus on support to research capacity building in settings with pressing short-term needs: "It was also about building up preconditions for development through enabling countries more control over their own histories and resources" (Interview Andersson 2021). Andersson recalls that there was a tension between Sarec and Sida on the issue of results:

> aid actors expect direct results and the research process is a different one. It provides results but rarely straight away. You need to have a different time perspective on it than just direct problem solving.
>
> (ibid.)

Swedish development research

This program was undertaken in order to strengthen the development research capacity in Sweden and to increase Swedish researchers' interest and involvement

in research on low-income country problems by reinforcing the funding available for development research provided by other research councils. This capacity and interest could then be used for instance in bilateral cooperation projects and as a resource for Sarec evaluations. These efforts were also seen to contribute to the internationalization of higher education and research in Sweden (Sarec 1977). Sarec used between 8 and 10% of its budget for this but pointed out that the main responsibility for this kind of research still rested with the universities and the other research councils. Sarec's research council function evaluated applications from Swedish researchers with the help of interdisciplinary groups. They accepted applications that could be classified as having to do with the vital sectors discussed earlier (Sarec 1979). In the year 1977/1978, 89 Swedish development research projects were financed by Sarec. The topic areas included: development theory and social science research, technology and industrialization, agriculture and rural development, health and nutrition and education and communications. Social sciences dominated (Sarec 1979).

If one assumes that the end goal is to contribute to development in low-income countries, this support is clearly more related to the universalist discourse. If one considers Sarec's overarching task, however, it includes building Swedish capacity to do development-relevant research. It is not just results-oriented, but also geared towards building an ability to cooperate with low-income countries. Although the political intention was for research councils to collaborate on development issues, the perception was that the other research councils became less active in relation to development research when Sarec was instated (Interview Andersson 2021).

Regional cooperation and special initiatives

Due to the relative isolation of many researchers in low-income countries, regional cooperation through networks was seen as the only realistic way to engage in research activities. This was most common in relation to the social sciences, where the isolation was much more extensive. Support was provided, for example, to the social sciences and development theory through funding research networks like the Latin American Social Science Council (CLACSO) and the Council for the Development of Economic and Social Research in Africa (CODESRIA).

This is another case where the two discourses can be seen to closely intertwine. The support is actually aimed at building local capacity but sees no other way to do so than, for example, to support regional networks. The capacity building efforts in regional cooperation and special initiatives are not tied to national institutions in the same direct way as in bilateral support.

Renewed economist protest

As a way to illustrate how some aspects of Sarec's founding years were perceived as controversial, I will return to sources like *Economic Debate* and others, where

critique of Sarec was voiced from time to time. On the issue of Sarec's research priorities and budget allocations – economist Carl Hamilton wrote an article in 1977 that criticized them for leaning too much on the perspectives of Marxist, cross-disciplinary researchers, actively excluding economic perspectives. The occasion was a workshop in Västerhaninge (Sweden) in August 1977 on development theory and specifically cross-disciplinary research, although part of the debate included a question about the purpose of the meeting. Hamilton claimed that it was a meeting to discuss criteria for judging future research applications, and he opposed the composition of researchers present:

> The group was dominated by researchers who maintained that they represented a cross-disciplinary alternative perspective to other ("conventional"), first and foremost economic research. Those in the group who considered themselves economists has a historical-sociological, often Marxist, perspective on development problems. In other word, it was strongly underlined that it was important to study historic and social processes, mainly on a global level. Studies of specific internal problems, different underdeveloped countries internal conditions and preconditions were given less weight, if any at all!
>
> (Hamilton 1977a, p. 382)

Hamilton was very critical of how economists – and economics as an area of research – were generalized, stating that the field was considerably more dynamic and context sensitive than the Marxist historians would have it. He maintained that the representation at policy-informing meetings had to mirror a wider group of subjects and perspectives, and that it was highly questionable to include people who also were applying for grants from Sarec (ibid., pp. 383–384). Knutsson's response was that it was not in fact a meeting to discuss criteria, and that it followed the recommendations put forth in the investigation report from 1973, to follow the trends within this kind of research. He stated that there were several economists there, including Swedish ones, and also referred to a similar seminar planned for the year after, more focused on the field of economics (Knutsson 1977). Regarding the issue of the focus on internal conditions, Knutsson stated:

> On this issue I just want to point out, as a social scientist, that I do not understand how one can discuss processes of underdevelopment and development without also applying a historic, structural point of view. The statement that the group was not interested in internal, national problems is entirely untrue. Among others, representatives from the Association of Third World Economists underlined this especially. In general, one of the most important results from the meeting was the critique, from several directions, against the development theoretical debate up until now: namely that it has paid far too little attention to local and national problem variations.
>
> (Knutsson 1977, p. 498)

Knutsson lamented that some researchers called neoclassical economics "conventional" but maintained that what was conventional in one field could be unconventional in another. He gave the example of structuralist views of development and stated that it was conventional within anthropology and sociology, but not economics. Knutsson stated that neoclassical economic theory should not be allowed "theoretical hegemony" on the topic of development (ibid., p. 499). Hamilton replied and claimed that Knutsson did not answer his critique and that he mispresented many of his statements, insinuating that Swedish economists were narrow-minded and non-pluralistic. Hamilton upheld that he welcomed a diversity of perspectives and that that this was not the case in Västerhaninge (Hamilton 1977b, p. 500).

Both Knutsson and Hamilton used a polemic tone and made claims and statements that the other did not answer. Regardless of the details in this case, it is clear that Sarec irritated some economists. Whether it was Sarec's explicit adherence to what was considered "alternative" perspectives at the time or something else is not possible to determine here. Either way, they were both battling for their right to define and stake out relevant borders pertaining to the study of development.

From research to development through aid

The following section focuses more closely on the question of how Sarec in their annual reports construct the relationship between research and development. I start by following the arguments concerning the links and then proceed to discuss the discourses I have identified and tensions between then.

The annual reports contain various answers to the question of what the links between research and development are. The essence of the argument is the same, despite variations in formulation and emphasis: in order for a country to develop autonomously, there is a need for local/national capacity that can identify and produce the knowledge most suited to that particular context and problem. Coupled with this argument is also a more or less explicit critique of low-income country dependence on external capacity (often from high-income countries), which implies that low-income countries cannot escape "underdevelopment" without developing their own capacity in science and technology. The aid actor Sarec was constructed as a *temporary facilitator*. Research capacity was consistently portrayed as a prerequisite for development, but the more specific issue of what methods to pursue to best support the process of building capacity without promoting aid dependence was more complicated.

Sarec as the context-sensitive and emancipatory donor

The first few annual reports discussed at length the effects of colonialism and the current domination of Western science to argue for more demand-led cooperation based on low-income country priorities. The domination of Western

science and patterns of research is portrayed as a continuation of colonialism in a sense (cf. Sarec 1977, pp. 8–9). Despite the recognition of the value of *indigenous knowledge systems*, many quotes and illustrations in the reports could be seen as upholding high income countries as the provider of the "right" kind of knowledge. The concept of indigenous knowledge systems does not return again in coming reports, and the discussion about the dominance of Western research is discussed in less explicit ways. Perhaps this is because the whole idea in a way would have undermined Sarec's very existence. Nevertheless, power relations in the world and control over resources are discussed frequently in the reports:

> Advances in science and technology have contributed to the high material standard of living in industrialized countries. Resources for developing science and technology knowledge – and control over such resources – have a strategic importance. … External technological dependency makes it very difficult for developing countries to be self-reliant and to build up capacity for autonomous decision-making, and a capacity for generating and absorbing those elements of technical knowledge which suit their particular conditions.
>
> (Sarec 1979, pp. 18, 40)

Science and technology capacity are seen to be necessary for independent and context-relevant decision making, which in turn is assumed to improve the possibility of the countries in question to reach their political and economic goals (ibid., p. 26). Though statements surrounding research and development such as the one above may appear less controversial today, it is interesting to consider them against the backdrop of dominant development discourses during these decades. As illustrated by the debate between economists and other social scientists (in *Economic Debate*), the problem definitions surrounding development – as well as the solutions associated with these – could be described in very different ways.

The annual reports contain clear ambitions to create modes of cooperation and support that are based on prioritized needs as expressed by the low-income countries. The heterogeneity of low-income countries is often discussed; "an awareness of the unique local conditions in each instance is crucial. It is important for Sarec to be able to 'plug in' into many different systems" (Sarec 1981, p. 11). The type of support offered by Sarec thus differed from country to country, though the general goals and principles remained the same. Sarec stated in its first annual report that "the fact that the needs of the third world countries govern the overall orientation of Sarec's support gives Sarec a special position in relation to other research funding bodies" (Sarec 1977, p. 18). This is another example of Sarec positioning itself as flexible and context sensitive in relation to "others" (though no specific organizations are mentioned). Another example that illustrates the centrality of *context* in Sarec's reports is the discussion about the "situatedness of researchers":

> Science is what scientists do, trapped as they are by their background, interests and the direct or indirect sponsors of their trade, not some independent reservoir of knowledge which gradually can be tapped.
>
> (Sarec 1979, p. 14)

The individual researcher, in other words, is often constructed in much the same way as research capacity on an institutional or national level during this period – as context-dependent. It assumes, in line with the localist discourse, that both history and present conditions affect what *can* be done, what *is* done, when and by *whom*.

Sarec as a temporary provider of priorities and expertise

During the first years, the main form of support was still financial support to research in international organizations. Also, while the ambition of Sarec was to engage in demand-driven research cooperation based on the priorities of the low-income countries, there were, as discussed earlier, also certain areas that were prioritized as they were identified more pressing than others. Certain sectors were deemed vital in terms of development relevance. Though the choice of these sectors may appear as "logical" from a global perspective of sorts, it may be considered inconsistent in relation to the policy of basing the support to low-income countries entirely on their own priorities:

> In order to promote development research and research cooperation, an organization having close contacts with the research community is required. … at the same time … such an organization [*Sarec*] should … endeavour to serve as a bridge between research and the practical implication of its results, between the "searching process" and the "implementation process".
>
> (Sarec 1977, p. 9)

Simplifying it a bit, Swedish expertise was to help fill the science and technology gap through acting as catalyzing experts in certain areas of research internationally deemed as development relevant. At some point, the low-income countries would become capacitated enough to do all parts of the research process on their own. Sarec portrays itself as a *bridge*.

The boundary organization's conundrum

The dilemma of priorities is not limited to the donor–recipient relationship; it is further complicated by the different goals that researchers and policymakers have, as portrayed by the first annual report:

> Those who are themselves involved in research tend to emphasize the free, unplannable and innovative aspects and to stress the long-term usefulness of the research activity, while those who are not themselves engaged in

> research often put the emphasis on the goals, steering, planning and more immediately useful aspects of the same process.
>
> (ibid., p. 10)

Here, Sarec suggests that their task is not an easy one. It is not specified exactly which political principal they are referring to – it could be the parliament, the Ministry of Foreign Affairs or Sida, for example – but it is a clear reflection of the pressures of combining two areas that are in several ways incompatible.

Concluding discussion: two central discourses

This chapter has shown that Sarec's research for development discourses are firmly based on a modern science model, often labeled as "Western". The role of the aid actor is portrayed as a catalyst and a bridge, a temporary facilitator of expertise. An ambition to play a more emancipatory role is restricted by path-dependence and the unequal relationship that characterizes "donor–recipient". It is further complicated by the different goals and roles of scientists and politicians and their respective political areas.

As I have already suggested, the first few years of Sarec's policy is characterized by the struggle between two main discourses – the *universalist* versus the *localist* discourse. These two discourses share common roots and do not always stay neatly separate; they cross and blend in different ways but can nonetheless be identified with some consistency, and each one can be associated with a number of other views, as exemplified below.

Universalist	Localist
Development focuses on the present and the future. Economic growth is central.	Development is conditioned by history. Multiple factors important.
The interests and priorities of HIC actors dominate.	The interests and priorities of LIC actors dominate.
HIC actors as experts and catalysts. Not critical of aid actor role.	HIC actors as temporary facilitators. Critical of aid actor role.
Universal knowledge and technology. Results in focus. Technology transfer. Absorptive capacity.	Local production and development of knowledge and technology. Process in focus. Indigenous capacity.
System important, but single factors are very significant.	Many factors important, the system.
Disciplinary research seen as superior. Some research less value-laden than others.	Cross-disciplinary research highly valued. All research is value-laden.
Modernization, neoclassical economics.	Center– periphery models, dependency theory.
Modern Western science as model for development. Local/national research capacity as necessary.	

Figure 4.1 The discourses

The table will be relevant for the following four empirical chapters as well. It is a simplification, of course, but it enables an analysis of the complexity of the research aid actors' construction of science and technology for development. An important point to make here is that how one chooses to conceive of the "development problem" has consequences for what kind of "solution" one strives for. Hence, if one sees development as relatively universal and predictable, then it is not as logical to ask the question of whether investment in a specific research council model is adequate – in Mozambique, for example. The context may still be considered important, but the context would be expected to adapt to enable the council rather than the other way around. A localist view of development would be more likely to ask whether that particular science council model is the best means to achieve the research-related goals in that particular country and context.

An equally important point is that both views in this case stem from the basic assumption that regardless of definitions, "modern" science is important for development. Science as a solution is not questioned, even though the localist discourse to a larger degree actively reflects on the value of other knowledge systems.

The two discourses can be said to differ in the way they define *central objects* such as: the meaning of development, the kind of research considered most relevant for development, the role of the high-income countries and aid actors and how to build capacity. The universalist discourse emphasizes individual researchers as a more important part of research capacity, while the localist discourse emphasizes enabling contextual factors like policy, infrastructure and so on. Both, however, situate these as dependent on the other. The localist discourse also emphasizes the importance of *local* capacity and knowledge more than the universalist discourse, which tends to see knowledge as more universal and thus less dependent on being produced in the low-income countries. According to this line of reasoning, research in international organizations is supported much more by the universalist discourse than the localist one, which tends to favor bilateral cooperation and regional support.

It would be incorrect to simply say that the localist discourse was dominant during these first years. The two discourses rather appear as main branches stemming from the same trunk – as illustrated by the figure above. Even though certain development theories can be associated with each discourse, both uphold modern Western science as the model for low-income country development, and they both have emancipatory ambitions in that low-income country self-reliance is a goal.

The sociotechnical imaginary that characterizes the founding years of Sarec's policy envisions the low-income country with a self-reliant system for research that is dependent on neither the aid actor nor Western research in general. The researchers identify their own problems, relevant to their context, and contribute to national development. Modern science is certainly questioned during the early years, but it nonetheless remains the model; otherwise one might claim that Sarec did not have a raison d'être. Scientific research is considered as a means to solve

problems and control events, regardless of whether the extended goal is to reduce poverty or increase economic growth, or both. Capacity building as a method can be seen as a unifying object.

It is clear that the boundaries between politics and science were being intensely negotiated during this period by Sarec and other actors. The dominant economic theories of development were challenged by dependency theory and other center–periphery models, and Sarec positioned itself as supportive of the latter perspectives. Opinions were strong about what Sarec should do, why and how – from Sarec itself, Sida, researchers and evaluators. Boundaries between politics and science were also negotiated in the act of deciding which types of research to support.

Entering an independent phase

In 1979, Sarec became a free-standing state agency, based on a government proposition concerning the organization of Swedish foreign aid (Prop 1979). The proposition underlined that Sarec was living up to the original intentions of the government and was starting to build important links between Swedish research institutions and their counterparts in low-income countries.[6] The autonomy of Sarec was considered vital at the same time, as continued close contact and cooperation with Sida was seen as necessary given that research-related aid also formed part of Sida's bilateral programs. The next chapter focuses on the 1980s, which were rather different in character when compared to the first years. Sarec started its independent phase, was evaluated for the first time and faced a different political and economic situation than at its start.

Notes

1 Program areas refer to the areas into which Sarec divided its activities, such as bilateral research cooperation, support to international research organizations and support to Swedish development research. I call the program areas modes of support. The different modes of support are associated with specific types of activities, such as research training, project-support or support to infrastructure.
2 Several other people were also involved. See the report.
3 The investigation report is in Swedish so the quotes are my translation.
4 Economic development according to Rostow's theory (1959) could be divided into five stages: the traditional society, preparations for "take off", take off, the drive to maturity and the society of mass consumption.
5 There are a number of different terms used for low-income countries, though developing countries is the term most frequently used: Third World, poor, underdeveloped, South and collaborating partner. The same variation exists for high-income countries: rich, wealthy, industrialized, developed, donor, technologically advanced, North and Western.
6 Another state actor working with research-related aid was the Swedish Commission for Technical Cooperation (BITS), set up in 1979 to promote technical cooperation between Sweden and middle-income countries. Sarec, however, remained the main

actor in efforts to contribute to development through research (cf. Annerstedt & Jamison 1986, p. 17).

References

Annerstedt, J., & Jamison, A. (1986). *Science and technology for development – Scandinavian efforts to foster development research and transfer resources for research and experimental development to developing countries*. UNESCO.

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Berg, A., Lundberg, U., & Tydén, M. (2021). *En svindlande uppgift. Sverige och biståndet 1945–1975*. Ordfront.

Bigsten, A. (1975). *Om u-landsforskningsutredningens forskningsbegrepp*. Ekonomisk Debatt, 2.

Bocking, S. (2004). *Nature's experts: science, politics, and the environment*. Rutgers University Press. doi.org/10.36019/9780813557663

Carmody, P. (2019). *Development theory and South–South cooperation*. Routledge. doi.org/10.4324/9781315147765

Eklund, M. (2007). *Adoption of the innovation system concept in Sweden*. Uppsala University.

Hamilton, C. (1977a). *Vem styr användningen av Sarecs forskningspengar?* Ekonomisk Debatt, Nationalekonomiska föreningen.

Hamilton, C. (1977b). *Slutreplik till professor KE Knutsson*. Ekonomisk debattt. Nationalekonomiska föreningen.

Hettne, B., & Knutsson K. E. (1974). *Tvärvetenskap eller ämnesimperialism I u-landsforskningen?* Ekonomisk Debatt, 6. Nationalekonomiska föreningen.

Horowitz, I.L. (1966). *Three worlds of development*. Oxford University Press.

Kjellqvist, T. (2013). *Biståndspolitikens motsägelser om kunskap och tekniköverföring–från konkret praktik till abstrakt policy*. Doctoral dissertation, Blekinge Institute of Technology.

Knutsson, K.E. (1977). *Användningen av Sarecs forskningspengar. Replik till Carl Hamilton*. Ekonomisk debatt. Nationalekonomiska föreningen.

Lusthaus, C., Adrien, M.H., & Perstinger, M. (1999). *Capacity development: definitions, issues and implications for planning, monitoring and evaluation*. Universalia Occasional Paper, 35.

Melander, F. (2006). *Lokal forskningspolitik. Institutionell dynamik och organisatorisk omvandling vid Lunds universitet 1980–2005*. Lund University.

Mulkay, M. (1979). *Science and the sociology of knowledge*. Allen & Unwin.

Nederveen Pieterse, J. (2010). *Development theory: deconstructions/reconstructions* (2nd ed.). SAGE Publications. doi.org/10.4135/978144627908

Nilsson, D., & Sörlin, S. (2017) *Research aid revisited – a historically grounded analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA). Sweden.

Odén, B. (2006). *Biståndets idéhistoria: från Marshallhjälp till millenniemål*. Lund, Studentlitteratur.

Prop. (1975). *Regeringens proposition med förslag till statsbudget för budgetåret 1975/76* 1975:1.

Prop. (1979). *Regeringens proporistion om riktlinjer för u-landsinformation och biståndets organisation m.m. 1978/79:113*. Utrikesdepartementet.

Regeringskansliet (1979). *Förordning (1979:832) med instruktion för styrelsen för u-landsforskning* (Swedish Agency for Research Cooperation with Developing Countries, SAREC).

Sarec (1977). *Sarec's first year: annual report 1975/1976*.
Sarec (1979). *Sarec's third year: annual report 1977/1978*.
Sarec (1981). *Sarec annual report 1979/1980*.
Södersten, B., & Lundahl, M. (1974a). *Forskning för utveckling*. Ekonomisk debatt, 2. Nationalekonomiska Föreningen.
Södersten, B., & Lundahl, M. (1974b). *U-landsforskningen*. Ekonomisk debatt, 7. Nationalekonomiska Föreningen.
SOU 1973:41 (1973). *Forskning för utveckling. Betänkande av u-landsforskningsutredningen*. Statens offentliga utredningar.
Stokke, O. (1989). *Western middle powers and global poverty: the determinants of the aid policies of Canada, Denmark, the Netherlands, Norway and Sweden*. The Scandinavian Institute of African Studies.
Utrikesdepartement (UD) (1985). *Tio år med Sarec. En utvärdering av SARECs verksamhet med särskild tonvikt på de bilaterala insatserna (Ds UD 1985:2)*.
Whyte, A. (2004). *Landscape analysis of donor trends in international development: human and institutional capacity building*. The Rockefeller Foundation.
Woolgar, S., & Latour, B. (1979). *Laboratory life: the social construction of scientific facts*. Sage Publications.

5 1980–1990
Settling in and becoming pragmatic

> There were some controversies at Sarec earlier, among other things the decision to believe in a certain development paradigm–dependency theory. This created some gloom amongst economists. It was a mistake which I think we corrected. We as a scientific organization could not have such a definite opinion about certain research being right and other research being wrong–it is an impossible stance in relation to the scientific community.
>
> (Interview Anell 2010, Former Director 1979–1983)

> In its initial phase, during the still optimistic seventies, it was hoped that the programme would have dissemination effects and more and more [*Swedish*] researchers become interested in third world problems. This is not the way things turned out. In a harder economic climate, horizons tend to shrink and what is immediately useful gets the upper hand. At several universities development researchers have become marginalized and now get drawn to the few hospitable institutions available.
>
> (Sarec 1982, p. 42)

In in the quote above, former director Lars Anell (director 1979–1983) was responding to a question about important changes during his time at Sarec. His answer suggests that a boundary organization like Sarec simply could not pay too much heed to the interests of individual scientific agents – in this case neo-Marxist dependency theorists; it had to remain as neutral as possible. The second quote illustrates another, albeit slightly different break with the aspirations expressed during Sarec's first years. In contrast to the founding years, Sarec's policy development in the 1980s can in general be characterized as more strongly aligned with the universalist discourse. Elements of the localist discourse remain clearly present, however, and the branches could be said to overlap a bit more in this decade. Sarec's role as a boundary organization was tested; the organization was forced to defend the importance of research for development in general and to re-evaluate their modes of work in particular. As the title suggests, pragmatism and results orientation are characteristic for this time period.

The purpose of this chapter is to explore how Sarec's research for development discourses evolved during the 1980s. How are universities and researchers seen to

DOI: 10.4324/9781003033271-5

contribute to development, and what is the role of the aid actor in this process? These questions are explored with the help of the ten-year evaluation, annual reports and two interviews. The ten-year evaluation is discussed relatively early in the chapter because its critique and recommendations make for an interesting contrast to the other materials and foreshadows a policy shift in the middle of the decade.

The wider social practice: a snapshot

In 1980, there was a proposition put forth by the so-called Brandt report to transfer massive amounts of funds to create a better balance between "North" and "South". Aid in the 1980s, however, was profoundly affected by the global debt crisis and the spread of neoliberal ideology (strongly supported for example by Margaret Thatcher and Ronald Reagan). Emancipatory ambitions and the priorities of the low-income countries shrank in importance across the board (Odén 2006). The Brandt reforms were placed on ice, and aid attention turned to achieving macroeconomic stability. Aid to higher education diminished; it was considered expensive and beneficial for too few people (Hydén 2016). The role of the state was seen as diminished in importance and processes of privatization were encouraged for example by the structural adjustment programs of the IMF and the World Bank (Odén 2006). Protests and critique from both high- and low-income country actors (e.g. low-income country researchers, governments and NGOs) led to the "second generation" of structural adjustment programs, which were considered more "humane", including some social safety nets (cf. UNICEF 1987; Limpach & Michaelowa 2010).

Against the backdrop of financial crises across the globe in the 1980s, foreign aid in general was criticized for being inadequate in several ways, and there were several Swedish publications on the issue (cf. Andersson et al. 1984; Rydén 1984). The goal of providing 1% of GDP for foreign aid was questioned during this time – could Sweden afford it? Solidarity and low-income country interests took a backseat to "more efficient aid" (Andersson et al. 1984, p. 7). Neoliberal ideologies dominated the agendas of many economically influential countries, entailing a strong faith in markets, trade liberalization and privatization (Overton & Murray 2021). Sweden moved closer to the middle of the OECD countries in terms of policies, which emphasized macroeconomic structural adjustments and debt relief (Odén 2006).

During this period, environmental change and degradation made its way higher up on global agendas. The Brundtland commission report *Our Common Future* was published in 1987 and the Intergovernmental Panel on Climate Change (IPCC) was established in 1988. Environmental consideration had been on the Swedish aid agenda earlier (cf. Prop. 1980) but was also included in a new Swedish aid goal in 1988 (MFA 1987).

Research politics in Sweden during the late 1970s and early 1980s focused on breaking the "sector principle"; democratization and steering of research towards usefulness changed somewhat, in favor of more autonomous decision making for

the universities. The steering of science was criticized, as was the situation in universities (cf. Wittrock & Elzinga 1985), and the OECD took a few steps back in relation to the instrumental view of scientific knowledge:

> Society, and governments, have a valid claim upon the expertise in the university, but to turn the university into a centre primarily of applied research is an abuse and a misuse of that expertise.
>
> (OECD 1981, p. 35, cited in Benner 2008, pp. 124–125)

This was a reflection of the dominating ideology of the time and the economic policy culture that went along with it (cf. Melander 2006; Elzinga & Jamison 1995). The research bills of the 1980s underlined the importance of research for staying internationally competitive as well as for national development, and sector agencies were turned into research councils.

A relatively pessimistic view dominated regarding both the poorest countries' potential to benefit from aid and Sida's ability to deliver this aid given the goals and method (cf. Rydén 1984). A harsher economic climate was seen to push Swedish development research into a more marginalized position. Man-made and natural catastrophes, inflation, unemployment and the arms race threat were some of the things the annual reports presented as obstacles for development in the low-income countries (Sarec 1980, 1984, 1988, 1989). At the same time, according to Sarec, the interest from low-income countries in science and technology policy was on the rise due to the UN Conference on Science and Technology for Development in 1979 (Sarec 1981). Towards the end of the decade, the number of Swedish universities engaged in research cooperation with low-income countries increased greatly. In all, the preconditions for research aid appear to have been mixed.

Attempting to construct a more pragmatic and concise task

Sarec's official task after 1979 (when it became an independent agency) in essence remained the same as it was before: "to promote research which can facilitate increased self-reliance in developing countries as well as economic and social justice" (Regeringskansliet 1979, point 2). The annual reports of the 1980s, however, are characterized by somewhat more concise and pragmatic interpretations, such as:

> to support developing countries in their endeavours to strengthen their research capacity. Or to put it in more quantifiable terms; Sarec aims at helping developing countries increase the number of qualified scientists who are able to work under reasonable conditions.
>
> (Sarec 1983, p. 5)

The interpretations are not surrounded by as much questioning, and the "whys" are not elaborated on in as much detail. Formulations can generally be interpreted

as less value-laden than those of previous years. Sarec considered certain development problems that required large amounts of money as being outside their reach (Sarec 1986, pp. 5–6). They could, however, help the low-income countries to increase the number of qualified researchers and to improve the environments in which they operated in certain ways. By the middle of the decade, the interpretation of the overarching task was as follows:

> to assist third world countries
>
> - to build up a national research capacity comprising research environments of good quality, education and training of national scientists, methods for planning and setting priorities for research and allocation of resources for these purposes.
> - with financial and scientific resources with the purpose of providing research results in problem areas of great importance to developing countries and of transferring available research results of significance to their development.
> - to promote scientific contacts and, when needed, create scientific collaboration with research institutions in Sweden or other countries.
>
> (Sarec 1986, p. 11)

As for the definition of research capacity and its relation to development, it remains essentially the same as well, but it is broken down into more concrete details. Improved research capacity was said to enable independent and nationally relevant problem solving. It was also seen as enabling better use of internationally available knowledge and as contributing to the quality of higher education (cf. Sarec 1983). Well-functioning research is portrayed as essential in a country's ability to use its resources efficiently: "To a large extent it is the level, quality and organization of scientific and technological skills that decide how well a country can make use of all other resources, e.g. labour, land, capital and natural resources" (Sarec 1984, p. 6). The efficient use of resources had not previously been raised as quite so central. Discussing in terms of efficiency can be associated with a narrower definition of development, including an emphasis on economic growth.

The ten-year evaluation: questioning models and measures

The first large review was published in 1985 and covered all Sarec's activities as well as its policy. It was conducted by Professor Carl-Gösta Widstrand (then based in Ottawa, Canada), Dr. Olav Stokke (then at the University of Oslo), Karl-Erik Norrman (counselor, the Ministry of Foreign Affairs) and Professor Göran Hydén (then based in Nairobi, Kenya). It focused on bilateral cooperation in particular and was based on three country visits (Sri Lanka, Tanzania and Ethiopia) as well as previously conducted internal evaluations (UD 1985). The review was sent out for consideration to around 70 authorities, research

institutions and organizations. Low-income country actors and partners were provided with an English summary the year after, and it was discussed 1986 at an international seminar in Sigtuna, Sweden (Sarec 1988).

During the first decade, Sarec considered national research councils to be the best entry point for starting research cooperation. This was because they were assumed to be able to articulate the country's research priorities. This was criticized by the evaluators, who were of the opinion that although the intention was well grounded, many of the countries did not in fact *have* well-functioning research councils (UD 1985). Sarec's solution to this was to encourage and initiate the *creation* of research councils, something that the evaluators considered highly problematic:

> We have no objection to the philosophy behind the choice of strategy. It is important that priorities should be designed by the recipient countries. It is, however, a paradox that the very concept of research support is, to a large extent, the result of donor priorities, since donors rather than recipients have given a priority to research as such as a necessary precondition for development.
>
> (ibid., p. 27)

The evaluators put forth that research in developing countries was very much modeled on Western standards and often dependent on foreign support and advice. They claimed that the idea of a research council pursued by Sarec was modeled on Swedish research councils, which had quite a different organization and different tasks compared to the research councils being built in some of the low-income countries. For example, a research council in a low-income country may need to have responsibility for and knowledge about *all* the research going on in a country, whereas Sweden had several councils, some of which only had to deal with certain limited subjects or one *sector*. They objected to creating new levels of organization and bureaucracy in settings where it would not necessarily fill the same purpose as in Sweden. Instead, they recommended that Sarec negotiate directly with research institutions where possible. Universities were seen as more capable of creating continuity, and more direct support to them was also considered a better way to support democracy and national identity (ibid., pp. 12–14). Cooperation with African institutions was considered an especially high priority given that the research capacity had deteriorated due to economic and other crises.

Other conclusions of the ten-year evaluation were that support to research training was considered successful and should be continued, and that support to research infrastructure like libraries and laboratories should be emphasized more. The evaluators recommended a slight concentration of activities, but the division of funds between thematic areas was considered relevant (medical and agricultural research received one-third each of the budget, and other areas received the remaining third). Support to international organizations was not to be reduced

further, they argued, since it was considered important for Swedish foreign affairs. At the same time, the evaluators said that this was not just the responsibility of Sarec – cooperation with different authorities and even other Nordic countries could assist in maintaining these important and necessary relations (ibid., p. 55). They recommended the reorganization of the system for supporting Swedish development research to stimulate long-term development of research capacity through increased support to research *environment*s instead of just individual researchers.

With regard to whether and how Sarec was fulfilling its objectives, the evaluators maintained that it was ambitious and commendable to attempt to measure and account for results of aid to research given the difficulty of such a task:

> progress in science is closely linked to mechanisms that are similar to concepts like success and "greatness" in artistic activity. To take a drastic example we may well ask: What is an effective piano concert? Can we measure its efficiency in a meaningful way? Probably not.
>
> (ibid., p. 45)

The evaluators concluded that Sarec was fulfilling their targets well, but they also stated that there were many external factors that affected how results come to be, and that measuring quality was more difficult than quantity. While it was perceived as a good thing to attempt to follow up, the bigger picture did not necessarily lend itself to detailed control. The evaluators' comments and recommendations are largely reflective of the localist discourse, downplaying the significance of single factors and highlighting the system together with basing activities on local conditions. In light of this, too closely copying the Western science system was not desirable.

Evolving modes of support and priorities

Sarec was now an independent agency and its budget was steadily increasing. The effects of decisions made in the 1970s together with new priorities as a result of experience and various evaluations together led to significant shifts in Sarec's methods and priorities during the 1980s. For instance, bilateral support went from next to nothing in 1976 to taking up 23% of the budget by 1984, and support to international organizations decreased from 93% to 49% of the budget during the same period. Support to regional cooperation increased from about 2% to 15%, and Swedish development research was allocated around 8.7% from having been around just 3% (UD 1985, p. 18). The money spent on social sciences was reduced while the focus on health, natural sciences and technology increased. In relation to the differences in priorities during the 1980s when compared to the 1970s, former director Bo Bengtsson (1983–1992) maintains that Sarec wanted to diversify their activities and deliver results:

> There was some criticism regarding a few of the activities we started in the 1970s, there was a corruption issue in the Latin American Program which we had to sort out for example. This influenced our working procedures, contributed to concretion and at the same time, support to social sciences was reduced and the balance between subject areas became more even.
>
> (Interview Bengtsson 2010)

> During my time, the focus was on contributing to results. For example, the cholera vaccine, the way of managing healthcare, research on sexually transmitted diseases and maternal health. It affected a national process in that it raised issues that were important to think about.
>
> (Interview Bengtsson 2010)

The modes of support – or programs, as they were called – were divided into four different kinds, and all of them were seen to contribute to building research capacity in different ways (bilateral research cooperation, research cooperation between developing countries and special projects, international research programs and Swedish development research) (cf. Sarec 1981).

Since the overarching purpose of Sarec's activities was to contribute to the development of "endogenous" research capacity, the annual reports underscored that all the modes of support needed to be coupled to low-income country efforts and needs in some way (Sarec 1985). The focus was on assisting in building capacity on a broad scale – from individual research training to research policy and planning. Transferring already available research results was also a part of their task. This latter fact seemed troublesome for Sarec in some respects, since aiming for capacity or results implied different strategies as well as different views of knowledge and development. This clash of discourses, as one might call it, is visible in both the documents and the interviews.

For example, Sarec states that the international organizations conduct research systematically and efficiently; they produce results that are then available for dissemination. Sarec maintained, however, that they were not primarily interested in "fish distribution" (disseminating general results) but rather in "fishing instruction" (support to national capacity building) (Sarec 1984, p. 12). Without their own capacity, the low-income countries would not be able to tackle their basic development problems, nor would they be able to make relevant local use of internationally produced knowledge. Though there were several reservations to international organization research, Sarec still saw it as strategically important to support both results and capacity building. This was partly because certain research deemed important (on vaccines for instance) demanded a sizable number of resources that would take time to build up in low-income countries. They saw the two approaches as mutually reinforcing (ibid.). This strategy is illustrative of the fact that Sarec constructs both universal and a localistic research for development discourse. The sociotechnical imaginary that this combination would seem to entail includes a partial continued dependence for the low-income countries on external research results.

Sarec's response to the conclusions in the external ten-year evaluation – as portrayed in the annual reports – did not raise the issue of research councils in the same critical way that the evaluators did. These details, however, were included in the English version published by the Ministry of Foreign Affairs in 1986, which was made available to – and discussed with – Sarec's partners in low-income countries. Sarec maintained that that it was important to be able to vary their "point-of-entry" from country to country, but direct support to universities and their departments gradually became more prevalent at the end of the decade (cf. Sarec 1988, 1989). Research training and individual project support remained an important method of support, but Sarec noted that several other donor organizations engaging in research aid focused on individual research projects and research training at the expense of the long-term endogenous capacity building process at research environments in low-income countries (Sarec 1984). They claimed that in order for research training for individual scientists to contribute to research capacity in low-income countries, cooperation efforts should focus on the needs of entire institutions. In relation to how the different modes of support worked together, Sarec portrayed itself as having a sort of palette to choose from:

> The principle of Sarec has been to develop a mode of cooperation which is flexible enough to be adapted to the specific conditions of each country … an awareness of the unique local conditions in each instance is crucial. It is important for Sarec to be able to "plug in" into many different systems.
>
> (Sarec 1981, p. 11)

Sarec's support was portrayed like a flexible piece that could be made to fit any puzzle essentially. Theoretically, the uniqueness of each country determined which modes of support were relevant and pursued. Despite the flexibility described here, some "base resources" were to be financed by the "recipient country": salaries and administrative costs, for example (Sarec 1983).

The support to international organizations continued, including funding of research on human reproduction, mother and child health and tropical diseases at the WHO. Funding for UNRISD (the United Nations Research Institute for Social Development) supported the improvement of development data, research on food systems and food security, refugee issues and urban development (Sarec 1984, 1988). The CGIAR also received funding. It was founded by the FAO and the World Bank in 1971 with the purpose of improving food production in developing countries through research on for example cultivation systems, rice varieties, livestock production, drought resistance and improvement of protein quality in wheat and barley (cf. Sarec 1984).

Examples of support to regional cooperation included funding of the research council CODESRIA (Council for the Development of Social Science Research in Africa) with its 56 members in 28 African countries at the time. Sarec funded it together with the Canadian IDRC and the Ford Foundation (Sarec 1984). Similar support was provided to AAWORD (Association of African Women for

Research and Development), which worked to improve the status of women and transform gender relations in African societies through research on women and reproduction, women and employment, feminism in Africa and women's roles in the mass media (Sarec 1983, 1984). Support to the LAP (Latin American Program) enabled independent and critical research in contexts that were sometimes repressive through the provision of grants to regional and national research institutions in the area of social science such as CLACSO (El Consejo Latinoamericano de Ciencias Sociales), a social science research council, and CIDE (Center of Development and Education Research, Chile) (cf. Sarec 1989). Sarec also supported the ISP (International Science Program) in Uppsala and the IFS (International Foundation for Science) in Stockholm, both of which offered annual stipends, basic research training and research funding to low-income country researchers (Sarec 1986, 1988).

An example of bilateral support was a joint research program with India on the production of oil seed to stimulate the increased consumption of edible oil. It involved research, research training and equipment. The actors involved changed during the decade but included the Indian government's Department of Science and Technology, the Swedish Seed Association, Uppsala University, Karlshamns oljefabriker, the Royal Institute of Technology (KTH) and the Swedish University of Agricultural Sciences (SLU) (cf. Sarec 1983, 1984). Bilateral projects with Ethiopia included subjects such as botany, history, medicine (like diarrhea and hepatitis) and energy and policy planning, and involved researcher exchange visits, design of research programs and support to master's and PhD training programs. In Tanzania, projects spanned agriculture, environment and health, including scientific training of women (in veterinary medicine, forestry and agriculture) and livestock feed research (Sarec 1987, 1989). Sarec also supported research in Cuba on issues like water pollution, plant diseases and a broad spectrum of medical topics (Sarec 1985, 1986).

Interesting to note is that the support to bilateral cooperation support involved not just actors like research institutes and universities but also government agencies, hospitals, organizations and private companies (cf. Sarec 1983). Interests, knowledge and expertise from a wide variety of actors were represented. This is in line with the ideas associated with innovation, Triple Helix and Mode 2 that I discussed in the introduction, although they were not labeled as such at the time.

The support to Swedish development research (about 8% of the budget) was expected to produce development-relevant results but also to increase the number of researchers willing and able to participate in bilateral cooperation with low-income countries. Towards the end of the decade, and seemingly as a result of the ten-year evaluation, support was given to not only individual researchers but also research environments and research groups. Twenty environments or groups and 100 individual research projects were given support in 1988, for example (Sarec 1990). Funding was provided for topics within development theory and social science; technology and industrialization; agriculture and rural development; health and nutrition and education and communication (Sarec 1981, 1986).

In the mid-1980s, the Swedish parliament passed a bill that included a proposal that a comprehensive research program be initiated on the problems of desertification and deforestation. Half of the proposed budget was to go to Sarec and the other half to two Swedish national research councils (Sarec 1987). Environmental issues were firmly established onto the political agenda in the late 1980s, and a special environmental goal was added to the Swedish foreign aid goals in 1988. Sarec claimed that this made clear that environmental issues needed to be integrated within all aid programs instead of being a "sector" of its own (Sarec 1989). Sarec presented all the environment-related projects they already had and stated that they would increase their efforts in the area. This would become central in Sarec's sociotechnical imaginaries, but not until the early 1990s.

The battle to define development problems and their solutions, part 2: converging ideas?

As mentioned earlier, as part of this study I have also tried to identify critique of research aid for each decade. During the 1970s and 1980s, the journal *Economic Debate* was one such place where this kind of material was found. This critique has since provided historical context and assists in nuancing the discussion about research aid discourses. This time around, there was no visible debate, such as the one during Sarec's founding years, but it is nonetheless an interesting set of opinions to highlight.

The role of cross-disciplinarity in combating development problems more efficiently was not underlined as strongly in Sarec's policies during the 1980s as it was during the 1970s, but statements like "development research must be interdisciplinary in nature" (Sarec 1988, p. 6) could still be found. Mats Lundahl (who also sat in the board of Sarec) wrote in 1981 about the role of theory in development economics and questioned whether interdisciplinary studies were useful or not (Lundahl 1981). He provides examples from both traditional and Marxist economic theory and concludes that while uncritical use of *either* tradition is risky, it is not worth totally discarding one or the other:

> As unjustifiable as it would be to just transfer our common Western models of thought to the underdeveloped countries, it would be equally meaningless to throw the baby out with the bathwater, that is, to automatically – without reflection – discard *all* "traditional" forms of economic analysis.
>
> (ibid., p. 608)

Development economics, he states, was by that time no longer focused only on economic growth but also on the distribution of resources and employment issues; the theories and the methodological toolbox had been diversified since the 1950s. He maintains that one should be skeptical of certain mathematical methods and grand theories that are not specific enough to be flexible and useful, yet one should also avoid getting bogged down completely in un-generalizable results

(ibid.). Useful interdisciplinary research needs an economic base, he argues, to enable analysis of how the distribution of resources plays in. Arne Bigsten argues in a similar vein (in 1984) about the role of theory in development economics, stating that grand theories were long gone (such as Rostow's stage theory), that dependency models were not that successful either and that a certain convergence of ideas (structuralist, neoclassical and even Marxist) could be observed at the time (Bigsten 1984). This mirrors the discussion about development theory in the introductory chapter.

Lundahl returns in 1985 with an article that was based on a presentation at a Sarec seminar (in Båstad, Sweden, in September 1984). He examines the cross-disciplinary approach to studying development in greater detail, again underlining the centrality of an economic framing (Lundahl 1985). He discusses different *kinds* of disciplinary combinations (multi-, cross-, and interdisciplinarity) that can be used to tackle development problems and concludes that they can indeed be useful. Multidisciplinary research in this case is two or more disciplines providing their perspectives on a problem without integrating methods or theories. Interdisciplinarity involves such integration, theories or methods that were *combined* to shed new perspectives on the problem, and cross-disciplinarity was considered as somewhere in between. Lundahl did not consider the cross- or interdisciplinary option as optimal or efficient because it presumably required too much knowledge of each field and demanded a lot of resources in itself. In other words, multidisciplinary efforts would be the most efficient and useful, according to him. Furthermore, Lundahl claims that because development economics and other, more socially oriented sciences were very far down on the hierarchy of and within disciplines, more cross-disciplinarity risked making development research classified as second-rate. "Good" researchers would tend to choose disciplinary work, in other words. His solution to this problem was for Sarec to ensure that all cross-disciplinary projects undertaken were held to high international standards.

There was no response from Sarec and since "cross-disciplinarity" is not raised consistently in the annual reports, it is unclear how many of Sarec's projects were considered as such, but the articles above can be seen as a snippet of the academic discourse on development theory in relation to Sarec's operations. This discussion also mirrored the national discussions on science policy and the applicability and usefulness of basic research versus sector science (cf. Benner 2008).

Building national capacity through bilateral collaboration

International organization research was criticized in the late 1970s and early 1980s, because research stemmed from "an inadequate understanding of the situation in which the problems arose and in which the research results were to be applied" (Sarec 1981, p. 5). Sarec maintained, furthermore, that the weak link in the global science and technology system was the national level in low-income countries and its "weak integration with the domestic system" (ibid.). In other words, there may have been a research council, but it did not have well-functioning cooperation with universities or the government, for example, or

vice versa. This conclusion remained intact through the 1980s, and towards the middle of the decade, it was the mode of support that Sarec upheld as the most central way to contribute to building endogenous capacity.

After the ten-year evaluation, the focus on Africa increased significantly and mostly through bilateral cooperation, which encompassed 14 countries by then, and one-fourth of Sarec's budget (cf. Sarec 1988, 1989, 1990). By 1988, 80 Swedish research departments were involved in bilateral cooperation of some kind, and Sarec considered it an efficient way to meet urgent needs as well as create a base for long-term capacity development (Sarec 1990). In countries that were seen as having more developed research capacity, like Cuba and Argentina, the cooperation was mainly aimed at producing results.

An important part of the bilateral cooperation was research training, which came to be known as the "sandwich model" – researchers from low-income country universities did field research in their home country but spent between one month and two years (usually up to four months) in Sweden for training and collaboration. In 1988, 500 researchers visited Swedish institutions in, and 400–500 Swedish researchers visited their counterparts in low-income countries (Sarec 1989). According to Bengtsson, the Swedish universities were chosen if and when they were "demanded, competent, and willing to work according to developing country premises" (Interview Bengtsson 2010). From a foreign aid perspective, this was not common practice. The discussion on tied versus untied aid was well under way, but aid tended to be designed in order to benefit the donor countries where possible, and against this background Sarec was pursuing more demand-driven development cooperation.

Towards the end of the decade, bilateral cooperation was diversified and expanded when compared to previous years. Cooperation remained highly project-based, and agreements often included research training. Actors receiving support were research councils, university departments and various types of research institutes. More institutionally oriented support was provided to some of the countries, including support to entire departments and library support (cf. Sarec 1987, 1988, 1989). This institutionally oriented support increased as the decade drew to a close, indicating a strengthening of the localist discourse's perspective on how capacity building was best achieved. Individual training and specific projects were still considered essential, but a wider type of support was seen as necessary to contribute to the long-term sustainability of research institutions. It also – at least theoretically – implied that the low-income country actors were given greater freedom in decisions concerning allocation of resources. Attempts to create more locally based research training programs could be considered a step in that direction as well.

Essential versus luxury research

The annual reports underlined that despite the difficulties of predicting results in research, it was important to develop concrete criteria for evaluating and following up the impact of this aid, in order to justify the investments being made

(cf. Sarec 1985). In response to a question about what kind of research was seen as relevant for development, Bengtsson maintained that it was not unusual to have to defend the idea that research could help the poor. One way of explaining how research was not a *luxury*, he said, was to present concrete results:

> Many people claimed that research does not help to solve problems in the developing countries. Yes it can, I said, but you have to show that results are achieved as well. I worked to show that development research, conducted in the right way, can lead to results.
>
> (Interview Bengtsson 2010)

At the same time, he maintained, concrete results did not imply that just applied research was relevant: "Good research is problem solving research. Whether it is basic or applied depends on which phase the research is undertaken" (ibid.). Defense of the role of research was also common in the annual reports:

> research capacity is also a prerequisite for effective use of factors of production. In this sense, research capacity is perhaps the scarcest of resources. Therefore, development of endogenous resources within science and technology can never be seen as a luxury that has to give way to pressing short-term priorities.
>
> (Sarec 1982, p. 5)

Often, the necessity of research capacity was defended with reference to the inadequacy of knowledge and technology transfer without due attention to contextual differences. Basic needs and research were not seen as mutually exclusive priorities. Without knowledge, they maintained, there could be no precondition for action. Science and technology were to be seen as a *dimension* of society (ibid., p. 2).

> Research results and techniques obtained in other, more developed, countries are often not applicable and the problems to be solved not the same. It is sometimes argued that research is a luxury commodity in a country where the basic needs of the majority of the population are not yet satisfied. This argument, however, is not valid even in a short-term perspective. The most important prerequisite for action is knowledge, and so the developing countries must both be given access to existing relevant knowledge and enabled to acquire such knowledge on their own.
>
> (Sarec 1986, p. 5)

Research is portrayed as essential in enabling a country to use its other resources efficiently and independently, something that should not be crowded out by other shorter-term priorities. Bengtsson maintained that Sarec at the time was focused on broadening its areas of support. The support to relatively marginalized areas

during Sarec's first years nevertheless had positive effects, though they were at times perceived as controversial:

> one of the areas of support was Samir Amin's network on the negative effects of colonialism and how industrialized countries dominated the developing world. His research was acknowledged because it received international support. It was a way to help get in "on the agenda", even though it was controversial to finance it, not least as seen by the Swedish parliament at the time. Another example was women's research. It was unusual to give money to something run entirely by women, and in Africa too. It showed the importance of highlighting different activities and effects related to gender, and it became very well established eventually.
>
> (Interview Bengtsson 2010)

I argue that this can be seen as part of the localistic discourse as it emphasizes the potentially positive effects of research on democratic processes as a long-term goal. Research aid is not tied to development *results* as a short-term primary goal. The sociotechnical imaginaries that this might entail involve independent research capacity as an enabler of democracy, including the visibility of marginalized perspectives. The ten-year evaluation discussed these marginal areas of support in the context of being projects that received "risk-money":

> SAREC – particularly during its first years had to pay a certain amount of "risk-money" for a number of projects, some of which may not have been successful. We think, anyhow, that it may have been worthwhile to pay this "risk-money" and that SAREC's "midwife activity" is useful both for recipients and the Secretariat.
>
> (UD 1986, p. 45)

Exactly how they have been useful is not discussed, but it is mentioned in a section that discusses the need for Sarec to consolidate and concentrate their activities somewhat. In other words, they saw the value of such investments (similarly to Bengtsson, above), but suggested that it was too much work to manage many smaller projects. This is something that was raised by later directors as well in relation to the support for regional organizations.

The emphasis on results becomes even more prominent in the annual reports after the ten-year evaluation. More space is dedicated to presenting countries, thematic areas and corresponding projects, and staples and diagrams are used much more to illustrate priorities and financial distribution (cf. Sarec 1988). Efforts were also made to reach the Swedish public with the results being produced. In 1990, Sarec published a report called *Knowledge that creates change* (*Kunskap som förändrar*). Bengtsson's introduction in this report very explicitly addresses taxpayers and explains how a seemingly insecure type of aid investment indeed produces results of great value to the low-income countries (Fruhling 1990). The

report goes through examples from all the thematic areas (health, rural development and the environment, natural sciences and technology and social sciences and the humanities). It also discusses briefly how Sarec operated and its goals, program areas and modes of support. It is reflective of the need to defend research as an area in aid. It explains concretely the many benefits that could be achieved with this kind of support, enabled by Swedish taxpayers.

The critical and context-sensitive aid actor

As I mentioned in the beginning, pragmatism characterized the 1980s, and even though self-critique was not as prevalent, it was far from absent. In the beginning of the decade, Sarec made it a point that it was crucial to always be ready to "question and redefine its activities" (Sarec 1981, p. 11). As I discussed earlier, the practice of traditional technology transfer as a development method (coupled with a linear view of innovation) still remained strong among aid actors worldwide during the 1970s and 1980s despite being heavily criticized. Sarec positioned itself against this approach:

> It is an illusion to view technology as embodied in capital equipment which would make it a commodity to be imported and ready to use. Technology is part of its native organisational culture with its network of directorial responsibilities, maintenance system, level of education and structure of incentives.
>
> (Sarec 1984, p. 6)

A context-sensitive view of technology is promoted here; they maintain that its function is dependent upon the system of which it is part. Transfer of technology is problematic, Sarec maintains, even when "stages of development" are similar, and for low-income countries it can be especially difficult (ibid.). As support to infrastructure was becoming more relevant and common, Sarec seemed to embrace a somewhat cautious approach in its policy. In relation to laboratory equipment, for instance, they stated that old and modern equipment were often mixed, resulting in quite great contrasts. Without adequate surrounding infrastructure, Sarec maintained, this was not meaningful – research capacity would "not increase just by buying a new piece of equipment" (Sarec 1985, p. 10).

During the early 1980s, Sarec frequently underlines the need to see research, technology and development problems from a systemic perspective, where social, economic and technical aspects all play a role. They do so not least when comparing themselves to other donors:

> Often, third world countries are faced with the problem of combining gifts of scientific equipment of a range of makes from various donors. Usually, this results in an even more complex laboratory structure than at a Western research institution.
>
> (ibid., p. 13)

In other words, inadequate foreign aid can result in low-income country laboratories with an incompatible and much too diversified equipment collection that cannot be appropriately maintained. This, Sarec implies, is clearly not support based on low-income country priorities. Instead, "step-by-step betterments within the existent infrastructure" (ibid.) are needed.

In a similar critical fashion, Sarec reinforces the importance of context in relation to their own role. Science and politics are portrayed essentially as opposites, and Sarec is struggling in the middle – an explicit example of the tricky place of boundary organizations. In the 1984 report, Sarec states explicitly that they are a government agency and that this means they have objectives defined by political superiors:

> Sarec is placed at the intersection of the scientific community with its clear-cut priorities and dislike for financial constraints and the democratic polity with its general objectives and obligation to set limits.
>
> (Sarec 1984, pp. 10–11)

This, they argue further, implies that they do not just prioritize among research areas, but are also held accountable to the goal of building research capacity (ibid., p. 5). Sarec actively reflects on their role as a boundary organization and the challenges that this can entail. They talk about the difficulty of having a "domestic context" while their main task relates to responding to the priorities of low-income country governments and universities. They also tie this discussion to the challenge of basing aid on low-income country priorities, something to which I will return below.

The critical aid actor is also visible in relation to the support of large international research organizations such CGIAR, the WHO and the UN – a method of support that Sarec inherited from Sida and the Ministry for Foreign Affairs. The fact that a high proportion of the budget went to international organizations in the beginning of Sarec's existence was justified by the fact that they enabled resource concentration. Furthermore, research problems were considered regional or global in nature; hence, international organization research was an efficient and well-functioning means to an end (Sarec 1981). This support, however, was something Sarec was supposed to change, given that the results were not seen as relevant enough to low-income countries and that the international organizations lacked adequate points of cooperation with the low-income countries. The international organization perspectives were sometimes portrayed as flawed from the outset, since the research priorities were set from a high-income country perspective.

> Almost all significant research programmes, even those sponsored by UN agencies, were created by scientists from the North. Thus the research programmes designed to solve Third World problems, WHO's research programme on human reproduction (HRP) or the Consultative Group for

> International Agricultural Research (CGIAR), are based on how American and European scholars perceived the problems of developing countries.
>
> (Sarec 1984, p. 7)

Sarec conducted evaluations of the international organizations with the goal to improve their low-income country relevance. In the quote below, Bengtsson is referring to these evaluations:

> They irritated a lot of people internationally, I got very angry letters. Nobody had criticized them like that before, and it reflected the views of the developing country researchers. But then we as an organization got a relatively good reputation since we didn't just criticize, we came with suggestions for changes and improvements.
>
> (Interview Bengtsson 2010)

Sarec remained active in improving the development relevance of the research and increasing connections to low-income country capacity building (cf. Sarec 1985). It is not least manifested through the repeated commitment to voicing the opinions of low-income country researchers. The consulting with a network of "third world scientists" on Sarec's policy development is portrayed as essential: "without the commitment of these people, SAREC would gradually lose its sense of purpose and direction" (Sarec 1981, p. 6). The critique remained, but by the mid-1980s, Sarec maintained that the international organizations had begun cooperating much more with low-income countries, and the flaws of this kind of support are not discussed as much in the latter half of the decade (Sarec 1984).

Given that Sarec's task was heavily focused on building endogenous research capacity – and increasingly so as the decade progressed – it is relevant to point out that half of Sarec's budget still went to international research organizations. The international organizations were, and are, very diverse in their make-up, modus operandi and locations. Though the *percentage* of the budget to this post did not increase, the amount of money to international organizations in fact continued to increase as Sarec's total budget did. Whether this was an effect of path dependence, political decisions or other reasons is not possible to answer in this context. It is, nevertheless, an interesting fact to point out since one could reasonably view support to international organizations as contributing significantly to high-income country research capacity as well as international research priorities rather than local capacity and low-income country priorities.

Questioning agenda-setting while setting the agenda

Sarec clearly and repeatedly underlined the importance of research aid being based on the priorities of the low-income countries. At the same time, as illustrated in Chapter 4, they saw it as necessary to question and reconsider how these priorities were set, since they were not always easily defined by the cooperating partners, either:

> Most countries, whether developed or developing, do not have clear-cut lists of priorities indicating the priorities accorded different projects. The important thing, however, is that SAREC funds are used for projects which are regarded as highly important by the planning authority as well as the researchers.
>
> (Sarec 1982, p. 6)

It is a seemingly open discussion about the potentially problematic process of setting the agenda; Sarec stated that international priorities tended to be translated uncritically to national priorities. There was often a need for discussion between the low-income country actor and Sarec regarding the feasibility of the priorities. To this effect, Sarec would also sometimes suggest specific areas of research, which could then be accepted by the "cooperating country". These suggestions, however, were to be made with caution to ensure national relevance and adequacy, according to the annual reports (ibid.). In 1984, Sarec maintained that the *rhetoric* surrounding priorities is misrepresentative of the practice.

> The priorities of developing countries, is probably, in fierce competition, the most misused phrase in the vast field of development rhetoric. It, or words to the same effect, is written into the aid legislation of almost all donor countries, but it comes out very differently in practice.
>
> (Sarec 1984, pp. 9–10)

Sarec also criticized other donors, maintaining that long-term capacity building processes need to take time, not least in the beginning stage when priorities and preconditions are established: "very often international donors are impatient and tend to rush the process. The donor wants to run faster than is actually in the interest of the participating country and scientific community" (Sarec 1981, p. 6). One could ask how Sarec saw themselves in this respect; were they also misusing the rhetoric? In response to a question about the issue of priorities, Bengtsson maintained that while they absolutely had the ambition of basing all support on local priorities, it was also a question of current resources, for example, whether the country in question had the capacity at that time to do the kind of research they wanted. Things had to be negotiated. In some situations, international or Swedish priorities came to be more central:

> We shouldn't do research for them, they have to do research for themselves. We can help with money and ideas or discussion, but it's their decision. That's why I was somewhat against how fast the institutional cooperation developed (*towards the end of the decade*) because sometimes dominant priorities may have been chosen (*within the bilateral cooperation between Swedish universities and low-income country universities)* and tested in developing country contexts.
>
> (Interview Bengtsson 2010)

In other words, donor priorities were sometimes used despite ambitions to the contrary, a priority-dilemma that is also raised in the annual reports:

> There will never be a lasting societal consensus on any neat hierarchy of scientific priorities. But this is a problem only for those with a yearning for perfect solutions. In the real world of second-best solutions, we know that tradition, on-going research programmes, existing centres of excellence, perceptions of future problems and political aspirations fuse into a pattern of resource allocation between broad areas of research. It cannot be defended with rigorous logic, but it works.
>
> (Sarec 1984, p. 9)

The picture that Sarec paints here of how priorities are set is complex, and it portrays a relatively pragmatic attitude. They also seem to adhere to the idea that perceptions about the future (ideas about future problems and political aspirations; see quote above) play into how resource allocation pans out. One annual report discusses the various pleas and attempts to underline the importance of particular research areas, for instance population research or energy research. The report argues that similar pleas could essentially be made for *all* sciences, but that financial aspects need to be taken into account and the most important aspect for low-income countries is self-sufficient research capacity (Sarec 1983).

More politics than science?

Adding to the list of factors affecting the construction of research aid, Sarec had several principals that both directly and indirectly steered their priorities. One of Sarec's strengths, according to Anell (director 1980–1983), was its ability to make choices about project support based on scientific criteria rather than political considerations:

> We could say no to things that did not maintain high enough quality scientifically. When Sida said no, it was a political issue. We could handle the no in a much easier way.
>
> (Interview Anell 2010)

Using scientific criteria is portrayed as being more straightforward than needing to consider political issues when deciding whether or not to provide support to certain projects. The focus on low-income country priorities in Sarec's support to building research capacity, argued Anell, enabled independent problem solving as opposed to delivering ready-made solutions. Sarec sometimes had to argue against the use of pre-defined priorities by the parliament:

> It is the problems of the low-income countries that have to steer things. We have encouraged them to formulate a program on which we can base cooperation, and that program has to be the point of departure.
>
> (ibid.)

The discussion about scientific versus political criteria in the annual reports was not so explicit during this decade, but in 1988 Sarec received a new decree that removed the word "self-reliance" and tied the definition closer to Swedish foreign politics:

> SAREC has as its task to strengthen underdeveloped countries' capacity for research and to promote such research that can contribute to development in line with the goals of Swedish foreign politics.
>
> (UD 1988, point 1)

Around the same time, in 1989, a new national research bill was presented that described Sarec as being "an aid agency first and foremost, with the task of promoting research which can facilitate underdeveloped countries' development" (Prop 1990, p. 114). The bill states that the responsibility for development-related research activities is not only Sarec's. It mentions the Nordic Africa Institute (NAI), Sida and the Bureau of Investment and Technology of Sweden (BITS) as other actors who engage in research in relation to low-income countries. Furthermore, the bill makes clear that while Sarec supports some Swedish development-related research, the general education system and the universities had the greatest responsibility for developing knowledge in this area.

The research bill tries to spread the responsibility for development research widely, implying that is not just an aid issue but also in the interest of other actors (research councils and Swedish universities, for example) to engage in these topics on their own accord. Later research bills are not as detailed in their discussions about development research, but during the 1980s, there is a clear push towards more university engagement in development issues.

Concluding discussion

Sarec experiences pressure from both principals and agents during this decade. External evaluators essentially accuse them of being neo-colonial through insistence on creating Swedish-relevant research infrastructure in order to build capacity instead of analyzing what is adequate in each setting. As the bilateral cooperation mode of support grows, Sarec sometimes has to mediate between Swedish researchers and low-income country researchers in order to minimize the effect of the inequalities. Two important political principals – the Ministry of Foreign Affairs and the Ministry of Education – tied Sarec's task more closely to the goals of Swedish aid in general, framing them as a political actor above all. Sarec, however, upheld the scientific nature of their work as their biggest strength, continuing to distinguish itself from aid in general. These were not necessarily incompatible framings, but they show that there were simultaneous and slightly different conceptions of Sarec's role.

The sociotechnical imaginary that seems to characterize the 1980s is one where the universities in low-income countries have enough researchers to conduct development relevant research in a wide variety of areas and teach and engage in international collaboration. Researchers also help to ensure that the

countries' resources are used efficiently. Towards the end of the decade, universities are portrayed as necessary for all countries. This view suggests that research is a national endeavor where results are also used for national progress. At the same time, the annual reports underline that research transcends borders and cannot be nationally steered. With this view, research and its results are to a large degree international. This is not a surprising tension in the sense that research has been, and still is, based in national settings while networks and international collaboration form a central part of the work. This is reflected in Sarec's modes of support and strategies, which aim to cover different kinds of research. The different modes of support – aimed at capacity building and/or producing results – can be partly coupled to certain views of how knowledge affects development, and these views continue to exist side by side.

The localistic perspectives remain present and strong, but the universalist discourse takes the upper hand. Sarec retains clear emancipatory ambitions and underlines the importance of self-reliant research systems with nationally based priorities that serve democratic development. There is greater emphasis on "global" priorities for research, and the importance of Swedish expertise. Economic growth is also increasingly mentioned as an important goal for development. Sarec in essence continues to marry a strong faith in modern Western science with a commitment to improving the influence of low-income country voices.

Heading towards the 1990s

As the 1980s came to an end, there were many big changes under way affecting the preconditions for research aid. The Cold War ended, for example, and world aid politics would change significantly as a result. Environmental problems and issues of sustainable development climbed high on the agenda, and Sweden was preparing to enter the European Union.

References

Andersson, C., Heikensten, L., & De Wylder, S. (1984). *Bistånd i kris. En bok om svensk u-landspolitik*. Liber förlag.

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Bigsten, A. (1984). *Ekonomisk utveckling i fattiga länder. En teoriöversikt*. Ekonomisk Debatt, 1. Nationalekonomiska Föreningen.

Elzinga, A., & Jamison, A. (1995). *Changing policy agendas in science and technology*. In Jasanoff, S., Markle, G.E., Petersen, J.C., & Pinch, T. (eds) *Handbook of science and technology studies*. Sage.

Fruhling, P. (1990). *Kunskap som förändrar. Resultat av forskningsbiståndet*. Berlings.

Hydén, G. (2016). *The role and impact of funding agencies on higher education and research for development*. In Halvorsen, T., & Nossum, J. (eds) *North–South knowledge networks: towards equitable collaboration between academics, donors and universities*. African Minds.

Limpach, S., & Michaelowa, K. (2010). *The impact of World Bank and IMF programs on democratization in developing countries*. CIS working paper 62. Center for Comparative and International Studies, ETH Zurich and University of Zurich.

Lundahl, M. (1981). *Teorins plats inom utvecklingsekonomin*. Ekonomisk Debatt, 8. Nationalekonomiska Föreningen.

Lundahl, M. (1985). *Bör utvecklingsforskningen vara tvärvetenskaplig?* Ekonomisk debatt, 2. Nationalekonomiska föreningen.

Melander, F. (2006). Lokal forskningspolitik. Institutionell dynamik och organisatorisk omvandling vid Lunds universitet 1980–2005. Lund University.

MFA (1987). *Bistånd för bättre miljö i uland. Förslag om ett miljömål i utvecklingssamarbetet*. SOU 1987:28.

Odén, B. (2006). *Biståndets idéhistoria: från Marshallhjälp till millenniemål*. Lund, Studentlitteratur.

Overton, J., & Murray, W.E. (2021). *Aid and development*. Routledge. doi.org/10.4324/9780367814755

Prop. (1980). Regeringens proposition 1980/81:20 om besparingar i statsverksamheten. Swedish Government proposition.

Prop. (1990). *Regeringens proposition 1989/90:90 om forskning*. The Swedish Parliament.

Regeringskansliet (1979). *Förordning (1979:832) med instruktion för styrelsen för u-landsforskning* (Swedish Agency for Research Cooperation with Developing Countries, SAREC).

Rydén, B. (1984). *Bistånd under omprövning*. Studieförbundet Näringsliv och Samhälle.

Sarec (1980). *Sarec annual report 1978/1979*.

Sarec (1981). *Sarec annual report 1979/1980*.

Sarec (1982). *Sarec annual report 1980/1981*.

Sarec (1983). *Sarec annual report 1981/1982*

Sarec (1984). *Sarec annual report 1983/1984*.

Sarec (1986). *Sarec annual report 1984/1985*

Sarec (1988). *Sarec annual report 1987/1988*.

Sarec (1989). *Sarec annual report 1988/1989*.

Transcription (2010). Interview with Bo Bengtsson 101011.

Transcription (2010). Interview with Lars Anell 032210.

UD (1985). *Tio år med Sarec. En utvärdering av SARECs verksamhet med särskild tonvikt på de bilaterala insatserna 1985:2*. Utrikesdepartementet.

UNICEF (1987). *Adjustment with a human face*. UNICEF.

Wittrock, B., & Elzinga, A. (1985). *The university research system: the public policies of the home of scientists*. Almqvist & Wiksell International.

6 1991–1997

Polemic revival and the intertwining of localism and universalism

> The main argument for strengthening national capacity is of course that any other alternative would make the South's dependence even greater than it is today. National capacity is the only way to promote independence! There is no shortcut to progress.
>
> (Sarec 1992, p. 9)

> Science then is very much looked upon as an instrument for competition and efficient industrial production. I know we all agree when saying that we expect more from science than that! Science has to do with culture. Science has to do with ethics and values. Moreover, we need an actively critical science – which is ready to apply its scientific methods also to the analysis of its own basic assumptions and organization.
>
> (Sarec 1994, p. 14)

> You do not exactly get a neat regression analysis, but I maintain that it is ignorant to claim that research aid does not contribute to poverty reduction.
>
> (Interview Holmberg 2013)

This chapter analyzes Sarec's policy development in the 1990s, focusing on how the relationship between research and development was portrayed. The discussion about Sarec's task is somewhat revived, a new methods document is produced and Sarec is evaluated once more. The universal and localist discourses both become strengthened but at the same time seem to become intertwined; one could call it *localist universalism*. Many discussions in Sarec's various policy documents and the 20-year review are more polemic than in the previous decade. The *local* and *traditional* are brought forth (in line with ideas within post-development) at the same time as the significance of *global* problems – and universalist general knowledge about these – increases.

Following largely the same type of structure as the previous two chapters, I highlight the changes in Sarec's task definition and discuss the development modes of support and priorities. I then ask how research is considered to contribute to development, what kind of development and how? The material used in this chapter is weighted in a slightly different manner given that Sarec did not

DOI: 10.4324/9781003033271-6

produce any annual reports of their own during the years following the fusion with Sida (1995–1997). Sida's annual reports are of a different character and significantly less detailed with regard to research.

The wider social practice: a snapshot

The 1990s were a very intense period of change within both foreign aid and research politics. Development theory started paying more attention to the *particular* and grand narratives took a step back at the same time as theories engaging with globalization as a phenomenon gained ground. There were profound changes in international relations after the end of the Cold War. Among other things, the aid infrastructure was rearranged (Forster & Stokke 1999). The influence of organizations like the OECD and the WTO, controlled by wealthy countries, had increased. The expansion of the European Union as a development actor added to this asymmetrical concentration of resources (King & McGrath 2004).

The United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro 1992, resulting in the Rio Declaration on Environment and Development (Agenda 21). The United Nations Framework Convention on Climate Change (UNFCCC) was introduced at the conference, with the aim of limiting average global temperature increases, and the signing of the Kyoto protocol in 1997 entailed binding emission reduction targets (Gupta 2010). Aid actors began discussing the protection of "global public goods", calling for agreements to protect vital border-defying resources like water and air (Odén 2006).

Critique of foreign aid is a more or less constant phenomenon, but the early to mid-1990s was a period when such debate flared up. A Swedish anthology aimed at sparking debate on aid was published in 1992 and maintained that the 1980s showed how there is no *one* solution to development problems (Sandberg 1992[1]). Instead, the authors maintain, problems and solutions are various and sometimes contradictory. Concern was expressed regarding a budding lack of solidarity with low-income countries, pointing at a need for a new kind of radicalism and interest in development characterized by pluralism. The authors feared a scenario where inequalities within and between countries would continue to widen as rich countries would be focused on their own business:

> At the same time as hate and desperation grows in poor countries, a cynicist and racist ideology breaks out amongst us, it will once again become acceptable to disregard – or see it as normal – that poor people die.
>
> (Sandberg 1992, p. 10)

The more optimistic scenario entailed continued positive effects of the spread of democracy and more self-reliant social and economic development coupled with aid based more on solidarity and less on political interests. Sharing this critical appraisal of past aid was the school of thought *post-development*, which gained ground during this period, and debates about integrating postcolonial perspectives

in development studies were also occurring (McEwan 2018: Carmody 2019). An example of the critique from researchers at the time was that people with traditional knowledge and beliefs in low-income countries had been undervalued and treated as "passive receptacles of progress" (Swantz & Tripp 1996, p. 44).

In terms of research politics, Benner maintains that both the 1990s and the first decade of the 2000s were characterized by the strengthening of the complex and double view of scientific knowledge that emerged in the 1980s. Tensions and conflicts regarding the role of research in society, he maintains, could be discussed by looking at concepts like ethics, responsibility, innovation, usefulness, quality and excellence. Issues like dependence on complicated technical systems, challenges of sustainable development and the relation of science to the market and to democracy illustrate how scientific knowledge had become more crucial as well as seriously questioned (Benner 2008). The direction and usefulness of research was still considered central, but academic freedom was also valued. According to Melander, the new systems of distribution of resources entailed an increased focus on evaluation (Melander 2006) During the 1990s, these tendencies were budding and systems of innovation as a concept gained some ground, as did the discussion about Mode 1 and 2 (Eklund 2007; Benner 2008). These models as well as systems for controlling and measuring scientific output and quality would become even more central in the 2000s. According to Elzinga (1995), this period presented a unique opportunity for handling global scientific disparities, but national interests or a "Eurocentric bias" continued to dominate the science policy agenda.

A conservative government ruled Sweden in the early 1990s and was replaced by a social democratic government in 1995. Quickly thereafter, Sarec was fused with Sida along with two other agencies – SwedeCorp and BITS. Economic austerity measures in the face of national debt characterized the period between 1995 and 2004, and the aid organization was included in this (Ekengren & Oscarsson 2020). Sweden also joined the EU in 1995.

The "Sarec model": evolving modes of support and priorities

Sarec had grown steadily and went from having 12 staff in the 1970s to over 40 during this decade. Its annual budget increased from 75 to around 450 million crowns between 1975 and 1998 (with some variations up and down).

Sarec had "twin-objectives", one being to assist in building national research capacity in developing countries, and the other to "produce research results on development issues of global relevance" (Sarec 1992, p. 1). These objectives do not change significantly during the early and mid-1990s, but *why* research was important as well as the issue of *how* research aid could contribute to development was discussed quite a bit. A *systems*-perspective was increasingly underlined, not least in conjunction with discussions about sustainable development (cf. Sarec 1994, 1995).

Up until this time, Sarec's policies and methods had been presented largely in their annual reports. In 1992, however, a document focusing largely on modes

of work was published. Though it was mainly focused on bilateral support as a method, it discussed all Sarec's activities. According to the document's preface, written by former director Bengtsson, it was in part a response to the great interest in their bilateral cooperation method expressed by low-income country research communities as well as other donors. The report's purpose was to describe and analyze how the bilateral method had worked until then as well as reflect upon critique and how it could be further improved (Bhagavan 1992, pp. 5–6). A draft of the document was presented at an international conference organized in 1991 by Sarec and the United Nations Centre for Science and Technology (UNCSTD) called International Cooperation in Science and Technology for Development. It was held at the Tällberg foundation in Stockholm.

The report tied back to Sarec's original directives and broke it down into a number of operational aims followed by a definition of research capacity. As mentioned above, there are no significant changes in these formulations:

- to identify problems and define research projects about important development issues
- to plan and carry out research
- to give advice on and to direct research which cannot be carried out with existing local manpower, and local financial and technical resources
- to create attractive and functioning research environments
- to participate in, and benefit from, international research, and
- to disseminate and implement research results

(ibid., p. 10)

The definition of the capabilities included in research capacity are described a bit differently, perhaps in part reflecting the challenges faced by many universities in Africa during the 1980s.

Thematic priorities and activities

Sarec's prioritized thematic areas (or, as they were called during part of the 1990s, *problem-cum-discipline oriented operational sectors*) were said to structure the work, and they were 1) health and nutrition, 2) rural development and environment, 3) natural sciences, technology and industrialization and 4) social sciences and the humanities (ibid.). The modes of support (or program areas) remained unchanged and were used within all the thematic areas. The budget allocations were larger for the first three thematic areas than for social sciences and the humanities. A Sarec report from 1992 maintains that there was a lack of engineers and natural scientists in Africa, something that may partly explain this disparity (Olsson 1992). Another reason, according to Sarec, was that the technological and natural sciences were associated with higher costs. A large part of the social science post in the bilateral efforts, furthermore, went to library infrastructure. The support to social science and the humanities within bilateral cooperation was in other words very marginal. This fact is acknowledged by Sarec, and they

also stated that there was little demand from the low-income country partners for cooperation in this area and that more substantial support to these subjects was made within the regional programs (Bhagavan 1992). This could be reflective of the idea that development relevance of science is more easily associated with subjects like medicine, agriculture and other such technologically oriented sciences. At the same time, the basic natural sciences such as physics, math and chemistry were also prioritized, and they are neither necessarily technological nor as easily associated with short-term development effects.

Africa remained a prioritized continent while collaboration with many Latin American countries ended on account of either having reached the intended objectives, the countries being considered middle-income by then (such as Argentina, Uruguay and Chile) or because of the need to concentrate efforts in face of Swedish aid budget cuts (cf. Sarec 1994, 1995). After the fusion with Sida, the support of Sarec was also supposed to contribute to the main goals of Swedish foreign aid, which (in addition to poverty reduction) were gender equality, sustainable development and democracy and human rights (Sida 1997).

As a way to underscore the importance of support to social sciences and humanities research, the annual reports reflect on globalization and internationalization, analyzing the effects on low-income countries:

> Two simultaneous processes are the accelerated global integration and the fragmentation of nation-states. The "Third World" notion is losing its meaning as a coherent concept identifying a group of countries which find themselves in very different situations. It is increasingly difficult even to describe countries as rich or poor. Even in the "First World", social and regional polarization is obvious in the wake of the global integration process. It makes more sense talking about rich and poor groups of people, favoured and ill-favoured sectors of society, regions, rural and urban areas.
>
> (Sarec 1994, p. 53)

The quote above is indicative of a different view of the levels of development of low-, middle- and high-income countries compared to earlier. Poverty and other forms of disadvantage were no longer phenomena affecting just the so-called Third World – a more complex global interdependence was emerging in the discussion.

The annual reports from the late 1980s and onwards made much more use of graphs and tables to illustrate the numbers and distribution in a more specific way. Sarec's activities are presented in a variety of ways, divided into thematic areas primarily but also according to modes of support, for example. Within the thematic area of health and nutrition, budget support was (still) provided to the WHO,[2] and regional network funding was provided for a research network between Tanzania, Mozambique, Zimbabwe and Zambia on reproductive health concerning maternal health. Another example of regional cooperation support was the Pastoral Information Network Project (PINEP), involving Eastern and Northeastern African research on soil and water research, studying the

"interface between indigenous knowledge and university range management knowledge" (Sarec 1995, p. 16). On the topic of rural development and environment, regional support for work on deforestation, desertification, agriculture, biodiversity, marine sciences and environmental economics was provided in Africa, Asia and Latin America (Sarec 1994). To strengthen natural science, technology and industrialization, funds were provided to AFREPREN (African Energy Policy Research Network) that enabled energy researchers and energy policymakers from Southern and Eastern Africa to cooperate and produce policy studies (Sarec 1993, 1995). Within Swedish development research, projects that were funded included focus on hydraulics, food technology, energy/environment, biotechnology, geographical information systems, industrial and technology policy and renewable energy (Sarec 1993). In the social sciences and humanities, the Programme for African Social Science (PASS) was funded, which supported regional research networks within political science, development economics and population-related research. One hundred institutions and 2000 researchers were involved in total engagement in conferences, methods seminars and joint publishing (Sarec 1993, 1995). Support was also provided for research on democracy and human rights, and the Sarec board decided to integrate the Women's Research Programme into the overall policy of Sarec, and gender research was to be included in bilateral cooperation with African countries.

Rural development and environment was an area that increased in importance, and the focus was to be aimed at small-scale, resource-poor farmers and long-term environmental aspects in order to contribute to both social and economic development. The local and small-scale are referred to more:

> The past approach with an almost exclusive focus on economics – although important – will not suffice. Most research for sustainable development is location-specific. Thus for instance, there is a need for many more local plant breeding programmes rather than global ones.
>
> (Sarec 1992, p. 27)

The categorization of *thematic* modes of support changes, and the annual reports are not as detailed every year, so it is not as easy to track how much of the budget is spent on international organizations specifically. If one excludes regional research programs and special research initiatives, the budget allocation to international research was around 30–35% during this period. This percentage cannot be compared to previous decades (during which the presentation of activities was slightly different). Sarec continues to criticize the international organizations, but not as much as before. At times, there is strong defense of continuing to provide them with support. Holmberg (director 1994–1995) underlined the importance of CGIAR research (in light of dwindling resources) in a 1992 position paper, a text that was also published in a longer version in the 20-year review of Sarec 1995. The paper concerned the question of how to meet global food demands, and Holmberg is critical of the lack of action. He states that more

donors should support research capacity building in low-income countries, and that international agricultural research is underestimated:

> Sometimes our scientists are their own worst enemies when they say, almost flippantly, that "science is not the problem in raising future food supplies". Decision-makers, pressed by a host of other problems, will then put that particular problem on the back burner, believing that science can at some later time be called upon to solve the problem if and when it has become more acute. What they conveniently forget, of course, is that, first, science is only part of the solution, second, that science needs to be mobilized and given more resources and, third, that a number of other requirements need to be met as well. And so a dialogue of the deaf continues and development workers have an increasing sense of frustration that the message is not hitting home.
>
> We believe that the CGIAR has a most essential role to play to allow developing countries meet future food needs. We try to be as active and supportive in CGIAR governance structures and scientific debate as we can, given our limited resources. In summary, we feel that the apparent complacency of political decision makers in the donor community towards future food needs in developing countries is entirely misplaced. There is also the added argument that our politicians underestimate our dependency on agriculture in developing countries and therefore the mutual interest rich and poor countries alike have in international agricultural research.
>
> (Holmberg 1992, p. 2)

The mission of the paper is to protest the complacency with which they consider both researchers and politicians (including other donors) to be handling the global threat of food insecurity in the world. The views and arguments put forth by both political principals and scientific agents are incomplete, maintains Holmberg, as science and politics are both needed in these challenges. Furthermore, while this reflects a more positive view of the role of international organizations, it is also clear that this is partly conditioned by the ability of the aid actor to be present and active.

Given that universities were the main actors in bilateral support, and one of the major tasks of universities is usually to provide higher education, it is interesting to analyze how it was handled in Sarec's policy. Higher education is raised and discussed more often this decade than during the first two decades. Research capacity is seen to more or less directly improve the quality of higher education at the university (cf. Sarec 1994). It was, however, not the task of Sarec to get directly involved with education. At one point it was suggested that Sida should support higher education and complement Sarec's activities, but this did not materialize (Interview Olsson 2009; cf. Olsson 1992). In 1994, a liberal party politician (Ylva Annerstedt, fp) proposed to the parliament that Sarec's mandate should be expanded and include higher education (Motion 1994), but this proposal was rejected by the foreign affairs committee (*utrikesutskottet*) on

the grounds that they did not see any reason to change the direction of Sarec's activities (Bet 1994). While higher education was envisioned as being benefited by research capacity, the political principals in question wanted Sarec's focus to remain on research.

Bilateral cooperation in focus

Research capacity continues to be constructed as something that will increase independence, and bilateral cooperation was the main method through which to achieve this. Former directors Wijkman and Holmberg reflect upon the role of research in development:

> If you do not build capacity that makes the recipient countries able to develop on their own, the countries will be dependent on aid forever. I see research capacity building as indispensable in the efforts to make developing countries less dependent on development aid and to strengthen their productive forces.
>
> (Interview Wijkman 2010)

> Development does not build on "knowledge transfer", as was often claimed before, it occurs in a process where one's own knowledge develops and merges together with impulses and experiences from other countries. This demands an analytical approach rather than finished knowledge … each society must therefore grow an analytical tradition of their own which keeps a vivid dialogue alive and stores experiences, what you call a research tradition. Qualified analytical competence is necessary not just for developing a countries knowledge tradition but also to create preconditions for assessing experiences and research results from other countries.
>
> (Holmberg 1997)

Bilateral cooperation had been a fast-growing mode of support in the late 1980s and early 1990s as a result of previously expressed ambitions in Sarec policies and the recommendations in the ten-year evaluation. It had gone from 40 to 216 projects between 1982 and 1992 (Bhagavan 1992). The model entailed two kinds of cooperation – one that was capacity-emphasizing and one that was results-emphasizing – though they were considered as overlapping in several respects (Bhagavan 1992). The cooperation with countries that already had relatively strong research capacity, like Argentina and India, focused on producing research results of relevance to the country in question, but also to other middle- and low-income countries. The cooperation, furthermore, had to be within areas where Sweden had "advanced expertise", and the quality needed to be of high international standard. Costs covered included travel and essential scientific equipment. No local costs were covered in the low-income countries, but some part-time salary support was provided to Swedish researchers.

Cooperation with countries that had relatively weak research capacity focused primarily on getting a *critical mass* of researchers and on supporting the environment where they worked, basically. Support was for example provided to the University of Asmara in Eritrea for capacity building in the basic sciences (Sarec 1995). Bilateral cooperation consisted of research training, certain collaborative research projects and support to scientific equipment and libraries. Costs covered were research training, scientific equipment (including procurement etc.), library support, travel and stay costs, minor equipment and some Swedish salaries. It did not necessarily have to involve cooperation with *Swedish* institutions (non-Swedish actors were allowed), but it was deemed preferable since it was essentially more cost-effective.

Different types of research training were integrated with bilateral cooperation. The so-called sandwich model and building up the indigenous base were used in cooperation with countries that had weaker research capacity while short-term advanced courses were organized within the results-oriented cooperation (Bhagavan 1992, pp. 21–24). The first two were focused on master's- and PhD-level research training, one of which included stays in Sweden and one meant to support development of local research training capacity. In the sandwich model, students traveled to Sweden for some periods of their research, whereas in the indigenous model, Swedish researchers visited the low-income country to teach and supervise certain periods.

Though the "content and form" of the bilateral cooperation was said to be determined by the low-income country in question, the availability of Swedish expertise was considered crucial, and a long-term commitment was important. The policy constructs the role of "advanced" foreign institutions as crucial for the low-income country institutions in the process of becoming independent:

> To become eventually self-sustaining, the capacity-building process must be firmly rooted in the developing country institutions themselves, with adequate resources put at their disposal, and with the reassurance that their links to scientifically advanced institutions abroad will be longstanding and durable to ensure the consolidation and the continuity of the learning process.
>
> (Bhagavan 1992, p. 17)

The policy envisions the low-income country institutions as needing help in the learning process, to eventually become sustainable. A certain level of dependence in the short term was deemed necessary for independence in the long run. The aid actor is described as a catalyst in this process that could "help initiate and accelerate the process by providing appropriate, if modest, inputs at critical junctures" (ibid., p. 45).

Former director Rolf Carlman (1995–1999) maintains that bilateral cooperation and its institutional focus was a successful model, but that Sarec sometimes had to mediate in order to ensure the fulfillment of this mutual interest:

> It was an efficient way to attempt to stop the brain drain syndrome. Of course one had to be careful so the relationship did not become too asymmetrical … It became our task to ensure that it was not only serving the Swedish institutions' interest.
>
> (Interview Carlman 2013, p. 9)

Sarec's annual report from 1992 states that the standards were highly set and not entirely representative of reality, but a goal they wanted to strive for. They clearly uphold equality between the collaborating partners as central and underline the importance of mutual interest. Sarec describes the ideal bilateral cooperation:

> The research work and the research training undertaken are of strong mutual interest and designed to benefit both sides. Neither of the research groups is miniscule in size but has some substantiality in numbers. Genuinely joint efforts are combined with true complementarity in project tasks. The two groups meet regularly to review ongoing work, plan future activities and jointly draft renewal applications. Both sides have full information on the budget allocations to each side and how funds are being spent. Scientific papers are written jointly, with the names from both sides appearing on the published articles. A key factor in determining the success of a project is whether the project leaders on both sides are senior scientists occupying central positions in their respective institutions.
>
> (Bhagavan 1992, pp. 5–6)

The period of Swedish cooperation with Cuba was one example Carlman raised as very fruitful and equal. Swedish researchers had certain methodological expertise, for instance, while the Cuban researchers had unique longitudinal health-data on their population and in some cases very good laboratories – the mutual interest was strong and efforts were made to keep the cooperation going after the formal aid was stopped (Interview Carlman 2013).

Critical evaluation

Before the publishing of some of the reports referred to above, Sarec commissioned an external review of bilateral cooperation that was presented in 1990. This evaluation was subsequently discussed at some length in the 1992 methods document about the Sarec model. The review was conducted by external consultants Carl Widstrand (professor in anthropology and archaeology) and Jan Valdelin (associate professor in economics), covering cooperation projects with 13 countries and including over 100 interviews. Widstrand and Valdelin concluded that low-income country researchers and other contacts seemed satisfied with the support in general. Furthermore, Sarec's focus on supporting research made them unique among state development organizations with its broad approach, long-term perspectives and openness to collaboration

with third-country actors on certain aspects like research training (Widstrand & Valdelin 1990). The evaluators maintained that while Sarec support clearly was having many beneficial effects both abroad and in Sweden, the bilateral model had several problems in its practical implementation. Some of these problems, including Sarec's responses, will be discussed below.

Several of these problems, according to the evaluators, were partly due to the fact that Sarec's administrative capacity had not matched the rapid increase in bilateral projects:

> It is quite obvious from the rapid accumulation over the last few years of collaboration agreements that SAREC has not stopped and looked at what they are doing. We believe that SAREC has taken on too much in this field without regard to its administrative capacity and without streamlining agreements, contract and the administrative routines for the running of the projects.
>
> (ibid., p. 29)

They maintained that Sarec staff seemed stressed and overworked, something that hampered adequate handling of various tasks and prevented the kind of "feedback loops" required for an organization to learn from its mistakes.

Another issue that Widstrand and Valdelin raised was that of setting priorities for research. They maintained that there was not enough development-relevant research to choose from at Swedish institutions, and that the priorities in practice were set by the Swedish institutions, not the low-income countries. Furthermore, they were of the opinion that the Swedish researchers in general had too little experience with low-income countries:

> Many university institutions lack the least experience of working in developing countries. We observe that some DC institutions have, during their planning trips, met the wrong kind of researchers or the unsuitable university institution to collaborate with. One common problem is the involvement of self-promoting individuals, more interested in a diploma than in real knowledge and scientific pursuits.
>
> (ibid., p. 31)

Sarec responded to this in their methods document, maintaining that because the Swedish institutions had more resources and capacity in general, the low-income country partners often became "junior" in comparison:

> Under these conditions, it is almost inevitable that the Swedish side should find itself slipping into the role of deciding what, how and when things should be done in the project, with the other side having to defer willy nilly to the "superior experience and wisdom" of the Swedish side.
>
> (Bhagavan 1992, p. 42)

Informal interventions by Sarec research officers were required, and sometimes formal evaluations, in order to balance this asymmetry. Regarding the priorities, Sarec's response was that though an important underlying principle has been that the priorities of low-income countries should determine scientific content, it had proven difficult to live up to.

> There are intense, and often bitter, rivalries between individuals and groups, who are competing for limited national and foreign resources. This is the case even in those countries with national research councils with official mandate to set priorities and coordinate research on a national basis.
>
> (ibid., p. 40)

Instead, Sarec maintained, they studied the country's research landscape and consulted with research leaders and leading government officials, for example, in order to decide how to best establish cooperation. A number of research areas and institutions are identified as potential cooperating partners, and if they in turn were interested, Swedish institutions were contacted. Sarec stated that they preferred this way of establishing partnerships since initiatives coming from Swedish researchers tended to emphasize their own priorities (ibid., pp. 40–41).

The fact that part-time salaries were provided to Swedish researchers but not to low-income country researchers was considered a dilemma by the evaluators as well. Low-income country researchers often had to take on other jobs in order to be able to keep doing research, creating great inequality. The solution suggested is that Sarec start paying part of their salaries as well (Widstrand & Valdelin 1990).

Widstrand and Valdelin maintain that budget transparency should increase and that more economic costs should be taken by the Swedish universities as part of their internationalization efforts. The price for Swedish capacity was too high according to them, and they suggested setting a limit to how much money Swedish institutions could get (a maximum of 25% of the total budget). In the case of cooperation with middle-income countries, Swedish universities should not get any money at all.

> In this perspective it is also a paradox that the "capacity building" type of support (where no one seems to expect any real output of research in many years to come) is being given to exactly those countries where salary levels in themselves are an obstacle to any "capacity" in research. To want to support a build-up of "long-term capacity" and at the same time only support training abroad and the imports of equipment, is really just to dodge the issue.
>
> (ibid., p. 33)

The evaluators were of the opinion that the salaries issue was a serious one, but Sarec's response was that it was deemed justifiable to give Swedish researchers part-time salaries because their costs were higher than those in the low-income countries (yet still cheaper than international consultants), and it was a part of

Sweden's national priority. Furthermore, they argued, the Swedish researchers' time benefits the low-income country actors since much of the money is spent on research training (Bhagavan 1992).

> It seems to us that the problem really is not one of Swedish costs, but of the fact that in some of the developing countries the salaries of local researchers and their support staff is so low that they simply cannot subsist on them. … If research is really a priority for a developing country, then that commitment should be shown, not least, through adequate remuneration of its nationals engaged in research work.
>
> (Bhagavan 1992, pp. 36–37)

A boundary is drawn here by Sarec with respect to what they believe to be the responsibility and priority of the low-income country. The same argument (expecting certain things to be prioritized locally/nationally in the low-income countries), however, could theoretically be used to question Sarec support to building libraries or labs as well. In other words, the different perspectives held by the evaluators and Sarec show that where the boundary is drawn regarding what is "okay" to finance is clearly a matter of negotiation. A few years later, a slightly different view is expressed by Sarec in a conference paper on the topic of international scientific cooperation by Ann-Marie Fallenius, who writes that "one problem with the Sarec model is the relatively high cost for the participation of the Swedish institutions" (Fallenius 1996, p. 102). She suggests that the cost-effectiveness of institutional cooperation and research training is an area where comparative studies would be interesting, indicating a more flexible view of their own operations as an aid actor.

Another point of critique from Widstrand and Valdelin was the fact that Sarec had inconsistent procedures for sending money and for accounting and procurement of services and equipment as well. There were too many ad hoc solutions. In this context, the relationship with Sida was raised as problem, since Sida could reasonably have been of assistance with procurement, for example, having more administrative capacity. They write "Sida is Sida and Sarec is Sarec and the twain shall never meet" (Widstrand & Valdelin 1990, p. 30), and proceed to account for the seemingly non-existent relationship between the two agencies:

> There is no central purchasing agency in SAREC. We have asked why researchers have not used SIDA's purchasing office, but have got some very interesting, but unprintable, replies. It would seem that SAREC purchases were never given any priority – maybe because of their rather limited size compared to the buying of locomotives or a harbour for Dar es Salaam. The services of the local SIDA office, the DCO, also took an intolerably long time.
>
> (ibid., p. 26)

They suggest that Sarec find ways to use the embassies and local Sida offices to make cooperation more effective.

Another problem with the bilateral model according to the evaluators was the lack of clarity and consistency in terms of how much time a collaboration was to go on. How was the length to be primarily determined and measured (the project objectives, the situation in the country or a set number of years)? And in relation to this, when was the collaboration to be stopped? They also point out that many collaborations basically consist of research training, and question whether Sarec should not specify standards to create a better balance between research and training and improve the analysis and reporting of project output.

The evaluators' view of Sarec's support was that it needed to be more clearly defined in order to be effective. It is a call for both more explicit and pragmatic support (including a clear exit strategy) and for less steering in the low-income country context.

Twenty years of existence: taking stock and "returning" to Sida

Sarec spent its first four years as an advisory body tied to Sida, and in 1995 they were fused together once more, along with SwedeCorp and BITS (two other small aid agencies). Some of the reasons for the fusion, as presented in government bills, were that the Swedish aid administration landscape had become too diverse and risked appearing confusing to collaborating organizations and countries (the number of actors, sectors and countries were too many). Furthermore, changes in the world (concerning environment, wars and migration, for example) were said to place new demands on Swedish aid, not least because Sweden was entering into the European Union (Prop 1995; Prop 1993).

According to Wijkman, who was director until the merger, though a potential fusion had been discussed in parliament, there had been no inquiry. The decision came quickly and unexpectedly after an election and change of government, and it was more a matter of party politics than any well-thought-through organizational change, according to Wijkman (Interview Wijkman 2010). Rolf Carlman (director 1995–1999) maintained that there was an investigation fatigue at the time:

> It would have been nearly impossible to start a new investigation because what was happening was that they (*the government*) caused a long period of uncertainty by initiating one investigation after another … When the social democrats returned they turned things around by deciding on a merger and charging the appointed Director General, Bo Göransson with the task of proposing how it should be done. … Of course there were good reasons for a merger … you have different aid instruments and if you put them together there is a bigger chance you will use them effectively.
>
> (Interview Carlman 2013)

According to Nilsson and Sörlin (2017), this merger also reflected structural changes that "eroded the political motives of keeping Sarec as an independent organization" (p. 60). Geopolitical developments in the aftermath of the Cold

War, financial crises, the public questioning of aid and the waves of administrative austerity contributed to the logic behind this merger, they argue.

The former directors who were in some way involved maintain that they worked to ensure Sarec's organizational intactness and relative independence in the process of merging with Sida. The importance of management and their understanding of research aid is also raised. Bo Göransson (director general of Sida during the merger), for instance, was described as a person who understood the "special case" of research and supported a kind of continued independence for Sarec within Sida (Interview Carlman 2013; Interview Holmberg 2013). This is not to say that there were no problems with the merger. The fact that Sarec was allowed to enter Sida without any major reorganization shows that the boundary between research aid and other aid – or science and politics, as it was often constructed – was successfully maintained. This boundary, however, was contested, as will be discussed in coming sections of this chapter as well as in the next chapter.

In the same year that Sarec fused with Sida, Sarec published a 20-year review (*Research for Development: Sarec 20 Years*), an anthology with the purpose of discussing various aspects of research aid and outlining which areas should be in focus in the future. The book starts with a foreword by Wijkman and is followed by 14 articles by different researchers on a wide range of topics.[3] The foreword paints a relatively negative picture of the preconditions for development in general, with diminishing aid budgets internationally at the same time that high ambitions and goals had been set at UN conferences (Schlebrugge 1995). There are several references to great changes occurring, unprecedented technological development (not least biotechnology and ICT), deregulation of financial markets, the diminishing role of nation states and problems of unemployment. The risk of social and environmental dumping is also mentioned. These changes were said to be "superseding" the old Marxist tension between labor and capital, the tension instead becoming about who has access to new knowledge and who does not. The fears altogether expressed reflect a very bleak sociotechnical imaginary.

Against this backdrop, Wijkman states, it is ironic that an organization such as Sarec ceases to exist as an independent agency. He proceeds to say that the publication is not intended to be Sarec's "swan song", however, and recommends that Sida build on Sarec's experience and strengthen long-term capacity building efforts (ibid., p. 8). Wijkman also directs critique at disciplinary sciences and asks for more engagement from the scientific community. He underlines the centrality of universities, not just because they conduct research but due to their role in providing higher education and contributing to democratic development. Furthermore, he calls for a wider concept of development that includes social and environmental factors much more actively.

A selection of the authors' contributions and conclusions will be discussed here since the review contains interesting discussions about factors that affected the view of research aid at the time. One of the chapters, written by history and anthropology professors Gudrun Dahl and Birgitta Odén, is on the ideas of

knowledge and how it is valued. Sweden has always had strong faith in research and development, they state, a faith that had increased with new ICTs: "The utopias of tomorrow are readily constructed in terms of the new *knowledge society*. Power over knowledge is coming to be seen more and more as a precondition of prosperity" (Odén & Dahl 1995, p. 24). They ask which things can be considered universal and question when values become imposed in a manner that overrides local interpretations, definitions and priorities. They conclude, among other things, that beyond "basic economic security", any ideas about what improvement is are culturally specific. Supporting research is important, but local knowledges have to be respected: "To put it more brutally, one must be able both to assert the value of the exclusiveness of one's own education and capable of respectfully listening to expertise of the illiterate" (ibid., p. 36). Odén's and Dahl's text illustrates, among other things, that the knowledge society and knowledge economy discourse were gaining ground as a major frame of reference. The discourse of the knowledge society – somewhat simplified – assumes a positive relationship between knowledge, innovation and socioeconomic development. Definitions vary greatly,[4] but according to Stehr, a knowledge society is one where all spheres are penetrated by scientific and technical knowledge (Stehr 2005). Tyfield et al. (2017) argue that the knowledge economy discourse represents the embodiment of neoliberalism for research and innovation.

Environmental history professor Sverker Sörlin writes about research policy and how it was at the time still formulated in terms of *national interest*, making the solution of transnational development problems unattractive and a "dubious" investment. He claims that this is unfortunate since global research is compatible with the national interest of competitive capacity and welfare in Sweden. The reason universities failed at this task in the 1970s, Sörlin argues, was that the motive of solidarity did not suffice; they needed self-interest as a guide as well (Sörlin 1995). He is critical of old development theories – from both sides of the spectrum (using Walt Rostow's and George Basalla's work from the 1950s and 1960s as examples[5]) – maintaining that neither of them recognized the fact that there were scientific centers in the "South" even back then, just as there were "peripheries" in the North. Regardless of this, he states, there are inequalities that can be abated by research, and donor countries should not "evade responsibility by remarking that others too have short-term, selfish interests" (ibid., pp. 51–52). In other words, Sweden should cooperate with low-income countries on development problems regardless of whether other, comparable countries are doing so. The transnationalization of science and technology taking place, maintains Sörlin, should not be based on geographic bias and only strengthen "North–North" relations. Sweden should engage in global sustainable development and researchers and students should be more present in Third World countries. If solidarity and scientific interest are not enough, industrial policies could be involved, states Sörlin. He suggests that the Swedish research councils ought to be able to include transnational scientific interests in their definitions of relevant research, so as to enable more cooperation with low-income countries.

The 20-year review also raised the problems and positive aspects of capacity building as a concept and method. Industrial engineer and environment specialist Stephen Karekezi argues that ever since capacity building became a buzzword among aid actors, short-term perspectives had begun to take over, something that was considered negative given that short-term capacity building efforts were more expensive and did not contribute to autonomous development as much as long-term efforts did (Karekezi 1995, p. 76).

There are several other topics covered in the 20-year review, such as the role of new technologies, support to basic sciences, aspects of international research, challenges of a growing population, environmental development scenarios and the effects of global economic liberalization. Suffice it to say, however, that the review raises both challenges and possibilities for research aid from a variety of different perspectives, not least the demands and possibilities of the knowledge society and the growing challenge of sustainable development.

One research university per country

Economic crises and other issues meant that resources for African universities were stretched thin, and their capacity was seriously reduced by the early 1990s. Economic recessions together with very high and increasing demand for higher education and lack of research and management capacity made the situation at many African universities very difficult, according to a report called *The Ownership and Cultivation of Knowledge* (1992) by Berit Olsson, who was working at Sarec at the time (not yet director). An important point of departure, according to the report, was:

> the understanding that indigenous competence and capacity for analyses and research is of fundamental importance for the national development and independence, and that the universities have an important role to play in this context.
>
> (Olsson 1992, p. 6)

Excessive financial and intellectual dependence on high-income countries was common, and the importance of research capacity for the quality of teaching and the democratic function of the university was underlined. Without well-functioning universities, these important roles and tasks would not be fulfilled. Sarec support had been more focused on departments and/or individual researchers, whereas the suggestion was to look at the entire institution and support management levels and infrastructure as well as research training and certain department research. The aim was ultimately to assist the universities to retain and recruit qualified staff and be able to independently manage their affairs (ibid.)

The 1996 conference paper by Fallenius (discussed earlier in the chapter) underscored that a central precondition for institutional support was that the country governments were interested in university development. Furthermore,

quality was more important than quantity, and it was not advisable for donors to spread their resources too thinly. Establishing *new* universities or colleges was something Sarec definitely advised against (Fallenius 1996). This is reminiscent of the critique Sarec received in the ten-year evaluation, concerning the building of research councils from scratch. Creating structures from scratch as foreign actors mirrors a universalist approach – against which Sarec in this case positions itself – instead recommending building on what is already there. Fallenius also called for increased donor coordination to reduce inefficiency and criticized other donors for being too controlling in relation to the low-income countries in terms of priorities and project management:

> To take one example: in 1990/91, some 20 different donors provided around 10 million dollars to support some 150 agricultural research projects in Tanzania. The many consequences of these different projects include duplication, lack of overview and coordination and – for Tanzanian scientists – a general sense of being run by donors rather than by national plans.
>
> (ibid., p. 104)

These problems were also discussed in Olsson's report. Capacity building became more common as a method in foreign aid around the world in the 1990s, but donor efforts pertaining to *research* were often short-term and heavily conditioned in terms of direction. Research training and scholarships abroad, for example, were common (Olsson 1992).

> The academics in the universities and researchers at the research institutes in developing countries may feel like perpetual trainees who never have the chance to take the initiative in research or to assume responsibility.
>
> (ibid., p. 15)

The focus on short-term projects implied, among other things, that the researchers were not as able to develop independent academic traditions. The fact that donors managed much of the projects and support (in part since the capacity to do so was low at the low-income country university) also contributed to continued dependence and hampered independent capacity to manage university affairs, maintained Olsson. Eduardo Mondlane University (UEM) in Mozambique, for example, could only "control" one-third of its budget and therefore invited all the involved donors to discuss its situation as an attempt to increase coordination and efficiency. The fact that donors had certain mandates and preferences could lead to "prosperous, sometimes over-resourced, university departments existing alongside languishing departments which have virtually nothing" (ibid., pp. 23–24). This could indicate that donors had certain predetermined priorities in common that they wanted to support, and Olsson argues that donors should not superimpose external ideas and instead align themselves more actively with the universities' own plans and priorities. This would presumably avoid the kind of extreme inequality between departments described earlier.

Olsson mentions, for example, that over 100,000 foreign experts were working in Africa at the time, and that well-educated people were needed "to fill key posts, partly to replace external advisers and consultants" (ibid., p. 7). In order to achieve this, Olsson suggested supporting entire universities, one research university per collaborating country. Institutional capacity would be supported through assistance in improving planning and administration on management levels, including issues like procurement and maintenance. "Core functions" were also to receive support: libraries, certain equipment and funds for staff development and research exchange and regional collaboration. University-based postgraduate training was to be encouraged and supported (in addition to, and sometimes instead of, sandwich programs). Experience with increasingly demand-led projects had been positive, according to Olsson, and should be expanded. Increased cooperation between Sida and Sarec was also suggested: efforts were to be coordinated and could sometimes overlap, but in general Sarec was to have overall responsibility for support to research and Sida would be responsible for support to undergraduate education.

There is no one model, states Olsson, but he maintains that research and higher education are two mutually dependent functions that are needed in all countries:

> This is a delicate task and there is no ready model to recommend. In general, however, certain choices must be made between quantity and quality. We assume in this discussion that it is essential for every nation (with the possible exception of very small nations) to have at least one well-developed university (one university in this context means one university system In Tanzania, for example, the Faculty of Agriculture is organized as an independent university. In Mozambique the Faculty of Education is at the independent teacher training college) with capacity for research and higher education in central areas.
>
> (Olsson 1992, p. 20)

Olsson's report can be seen as a strong expression of the localist discourse, although there are also universalist assumptions at play, something that is partly illustrated by the quote above. The report clearly has an anti-colonialist perspective and is reflexive of systemic complexity and specific country contexts at the same time as it advocates a relatively specific set of ingredients to create the research university.

Framing horizontal research as key to sustainable development

During the early 1990s, the annual reports once again had long, essay-like introductions where basic policy questions are discussed in more detail. This time, a considerable amount of criticism is directed at the organization of science in general, and the environmental issues are used as an example to justify the need for more interdisciplinary research (cf. Sarec 1994, 1995). Research within

disciplines is both lauded and found inadequate in terms of contributing to (sustainable) development. Reference is also made to a need for a change of value systems, where "we" in the high-income countries must analyze our "culture of instant gratification" and begin to think more about future generations (Sarec 1995, p. 3). The director at the time, Wijkman, maintained that one of the biggest changes in Sarec's strategy during his time was the increased focus on sustainable development, notably environmental issues related to agriculture, energy, marine science and economics, changes that did not come easy (Wijkman 2010).

Wijkman's account illustrates what is also clear in the annual reports – a change in priorities during the early 1990s. The UNCED in Rio de Janeiro 1992 is portrayed as a challenge for science (cf. Sarec 1993, 1994). Sarec maintained that UNCED changed the focus of development. The needs, knowledge and participation of local people is underscored. In relation to the problem of deforestation for example, an annual report stated:

> During and after the Conference the discussion has broadened. Focus now is more and more on land-use and not only on forests. Thus, the perspectives of local people come much more into the picture … it is essential to recognize the needs of local people, to tap their knowledge and to involve them in the development of sustainable management systems.
>
> (Sarec 1993, p. 10)

The issue of *global security* also came to the fore, and Sarec argued that without a raised standard of living, the pressure on the global ecosystem and conflicts in and between nations will be increased, and mass migration will occur (cf. Sarec 1994, 1995). Science is portrayed as a potential part of the solution to this problematic development, more specifically science with a *systems-perspective*, traditional disciplines together with cross-disciplinary or *horizontal* research efforts (cf. Sarec 1992, pp. 27–28; Sarec 1994, pp. 5–6). UNCED is criticized for not underlining the *limits to growth* enough, and economics is taken as an example of how science needs to be changed to contribute to sustainable development. Sarec maintains that the "disease of verticalization" – or a high degree of scientific specialization – is partly to blame for the environmental crisis:

> Technocrats have a tendency to look at Nature as infinitely big – both as a source for raw materials but also as a sink for pollutions and waste materials. Hence economic models presently used give little incentives for conservation or for curbing pollution. To promote sustainable development a more integrated approach to environment and economics is needed.
>
> (Sarec 1993, p. 13)

> At the core of the problems just referred to seems to be the very organization of science. This is somewhat of a paradox. The progress of science during the last few centuries rests largely on the ability of the researcher to limit his or her scope when formulating problems. Specialization has been very

> successful. However, many of the problems facing mankind are of a nature where a systems-view is required rather than a view focusing on the parts.
>
> (Sarec 1994, p. 9)

As the decade progressed, the critique of the organization of science seems to subside. As I have pointed out, the Sarec annual reports ceased temporarily when Sarec joined Sida, and a new director was appointed at the same time. The Sida reports were not nearly as extensive in their coverage of Sarec's activities. From my interviews with former directors, it seems that what characterized those years was mainly getting acquainted in the new organization and defending the "special case" of research.

Localist universalism? The branches grow closer

There is no clear dominating discourse in the 1990s; there are strong elements of both the localist and universalist discourses coexisting and partly intertwining. A localist systems-view is married with a universalist "general solutions"-view. Research that focused too much on economic factors was criticized, and a systemic, multi-factor perspective on development was underscored (reminiscent of the arguments in the 1970s), at the same time as economic factors were also slightly more underlined than before. Research capacity as emancipatory – a way to independent problem solving – is lifted once again. The number of statements to the effect of "this is how you do it", however, increase as well; the problems are global, and there are solutions that are relevant to all countries.

In the methods document from 1992, Sarec states that "research capacity is an integrated complex made of intellectual, infrastructural, technical and organizational capabilities, embodied in human beings and material things" (Bhagavan 1992, p. 44). The abilities identified ranged from the individual level to the national level, and these abilities were considered preconditions for more equality in the international research sphere. Discussions about *equality* are present, but the new focus – that of sustainable development – seems equally important. This implies an increased focus on local and traditional knowledge, small-scale projects, at the same time as it is very much about globally defined problems and solutions, akin to the concept of glocalization (cf. Featherstone, Lash & Robertson 1995).

Low-income countries are at times explicitly imagined to be following the steps of Sweden, and discussions about what countries "need" become more frequent:

> All of us know the important role of science and education for development. The history of Sweden demonstrates that to move from poverty to prosperity a country needs professionals to identify problems, analyse them, propose policies and implement them.
>
> (Sarec 1994, p. 6)

> All countries need a better understanding of how eco-systems function, in particular how to develop sustainable user systems.
>
> (Sarec 1993, pp. 9–10)

The number of scientists and technicians per capita in Sweden is then compared to the ratio in developing countries, and the conclusion is that there is a massive gap in capacity. This is not necessarily controversial; in one sense it is merely saying that knowledge is important. Furthermore, this uneven concentration of resources results in much more research being conducted on the problems of rich people, while for example the health issues faced by poor people are grossly under-researched. The quotes above can be seen as an expression of the universalist discourse in the sense that low-income countries are expected to follow "more developed"/high-income countries. At the same time, the reasoning attached to it is also localist – concerned with using research to reduce inequalities and increase self-reliance. More "indigenous expertise" is needed and fewer foreign experts (Sarec 1994, p. 6).

An example of how Sarec supports democracy and human rights implied more or less explicit critique of the Structural Adjustment Programs (SAPs) implemented by the World Bank and IMF:

> Structural adjustment programs are being implemented in many countries, often supported by the World Bank and IMF. The developing country participation in shaping the terms of SAPs is very limited. Sarec provides support to macroeconomic research with special emphasis on stabilization policies.
>
> (Sarec 1992, p. 55)

This can be seen as an expression of the localist discourse in that Sarec clearly objects to the lack of low-income country involvement, and they saw the need to go in as a type of *buffer* to support research aimed at stabilizing the effects of the programs.

Concluding discussion: dependency as a way to independence?

In the 1990s, one can see a budding trend of highlighting the interests of Sweden, compared to the 1970s and 1980s. The policies started discussing mutual interest more, whereas the first two decades focused more actively on the interests of the low-income countries. As was mentioned above, this was to a certain extent discussed by Sarec and explained with the argument that it would require too much work for Sarec to involve too many foreign actors, for example. Furthermore, they maintained that it was difficult to establish "real" representative low-income country priorities; therefore, the available development relevant expertise in Sweden affected the possibilities available for bilateral cooperation. Efforts to make research aid more demand-driven were undertaken towards the middle of the decade as emphasis on all-encompassing institutional support was suggested.

The sociotechnical imaginary characteristic of the 1990s was quite dramatic and fatalistic. At least one strong research university was envisioned in each low-income country; this university is self-reliant and has to handle large amounts of uncertainty and change in relation to environmental problems and technological development. It does this through increased focus on problem-oriented and cross-disciplinary research and by providing higher education to more people. The aid actor is considered a necessary catalyst to this independent future.

One of the tensions in research aid policy that keeps on resurfacing both explicitly and implicitly is the fact that self-reliance as a goal and a localist view of development as a method exist at the same time as reliance on high-income country scientific institutions is considered a necessary part of this journey. High-income country trajectories are the model for how development is envisioned in Sarec's policies. There are several ambitions in the policies that are not compatible. Ambitions to make room for new tracks exist, but actually forging them seems difficult.

As Sarec approaches the end of the 1990s, it seems to have begun to find its place within Sida. A new extensive methods document is published and annual reports begin appearing again. Simultaneously, according to Nilsson and Sörlin (2017) the 1990s signaled the beginning of a slippery downhill slope for Swedish research aid.

Notes

1 Some of the authors were: Stefan de Vylder, Björn Hettne, Mats Lundahl, Marianne Laanatza, Bertil Odén, Pierre Frühling, Bo Göransson, Carl Tham, Maria Leissner and Birgitta Wrenfelt.
2 Research on tropical diseases, human reproduction (infertility, family planning, contraception), diarrheal diseases, tuberculosis, acute respiratory diseases and essential drugs.
3 Gudrun Dahl, Birgitta Odén, Mats Kihlberg, Sverker Sörlin, Stephen Karekezi, Erik W. Thulstrup, Christine von Weizsäcker, Malur R. Bhagavan, Jan Holmgren, Ann-Mari Svennerholm, Jan S. Nilsson, Johan Holmberg, Madeleine von Heland, Ricardo Petrella, Martin Khor and Arne Jernelöv.
4 The concept seems to have been coined in the late 1960s (Drucker 1969), but became more widely used in the 1990s.
5 Rostow's work on stage theories of growth and Basalla's work on how unequal scientific relations were established through colonialism.

References

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Bhagavan, M.R. (1992). *The SAREC model: institutional cooperation and the strengthening of national research capacity in developing countries*. SAREC.

Carmody, P. (2019). *Development theory and South–South cooperation*. Routledge. doi.org/10.4324/9781315147765

Ekengren, A-M., & Oscarsson, H. (2020). *Biståndsviljan försvagas*. In Andersson, U., Carlander, A., Grusell, M. & Öhberg. P. (eds) *Ingen anledning till oro (?)*. Göteborg: SOM-institute, Gothenburg University.

Eklund, M. (2007). *Adoption of the innovation system concept in Sweden*. Uppsala University.
Elzinga, A.M. (1995). Traces of Eurocentrism in current representations of science. *VEST*, 8(4), pp. 85–96.
Fallenius, A.M. (1996). *Research capacity building in developing countries*. International Scientific Cooperation. Paris.
Featherstone, M., Lash, S., & Robertson, R. (1995) *Global modernities*. Sage Publications.
Forster, J., & Stokke, O.S. (1999). *Policy coherence in development co-operation*. Routledge. doi.org/10.4324/9781315038100
Gupta, J. (2010). A history of international climate change policy. *WIREs Climate Change*, 1(5), pp. 636–653. doi.org/10.1002/wcc.67
Holmberg, J. (1992). *Future food needs, international agricultural research and the role of SAREC*. Sarec.
Holmberg, J. (1997). Research – a precondition for development. In Wohlgemuth, L. *Bistånd på mottagarens villkor*. Nordiska Afrikainstutet.
Karekezi, S. (1995). Capacity building for policy analysis and implementation. In Schlebrugge, K. (ed.) *Research for development: Sarec 20 years*. Kristianstads boktryckeri.
King, K., & McGrath, S. (2004). *Knowledge for development? Comparing British, Japanese, Swedish and World Bank aid*. Zed Books Ltd.
McEwan, C. (2018). *Postcolonialism, decoloniality and development*. Routledge. doi.org/10.4324/9781315178363
Melander, F. (2006). *Lokal forskningspolitik. Institutionell dynamik och organisatorisk omvandling vid Lunds universitet 1980–2005*. Lund University.
Mot. (1994). Motion 1993/94:U214. Biståndssamverkan rörande högre utbildning.
Nilsson, D., & Sörlin, S. (2017) *Research aid revisited – a historically grounded analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA). Sweden.
Odén, B. (2006). *Biståndets idéhistoria: från Marshallhjälp till millenniemål*. Lund, Studentlitteratur.
Odén, B., & Dahl, G (1995). *Knowledge and Sweden's way from poverty to affluence*. In Schlebrugge, K. (ed.) *Research for Development: Sarec 20 years*. Kristianstads boktryckeri.
Olsson, B. (1992). *The ownership and cultivation of knowledge: the rationale for Swedish support to universities in developing countries*. Sarec.
Prop. (1995). *Regeringens proposition 1994/95:100 – Förslag till statsbudget för budgetåret 1995/1996*.
Prop. (1993). *Regeringens proposition 1992/93:244 – Om styrnings – och samarbetsformer i biståndet*.
Sandberg, S. (ed.) (1992). *Uppbrott: om u-länder, bistånd och solidaritet inför sekelskiftet: en debattantologi*. Stockholm, Sv. Volontärsamverkan.
Sarec (1993). *Sarec annual report 1991/1992*.
Sarec (1994). *Sarec annual report 1992/1993*.
Sarec (1995). *Sarec annual report 1993/1994*.
Schlebrugge, K. (ed.) (1995). *Research for development: Sarec 20 years*. Kristianstads boktryckeri.
Sida (1997). *Sida årsredovisning 1995/1996*.
Sörlin, S. (1995). *Transnational scientific interest*. In Schlebrugge, K. (ed.) *Research for development: Sarec 20 years*. Kristianstads boktryckeri.
Stehr, N. (2005). *Knowledge politics: governing the consequences of science and technology*. Paradigm Publishers.

Swantz, M.L., & Tripp M.A. (1996). *Development for big fish or for small fish? A study of contrasts in Tanzania's fishing sector*. In Apffel-Marglin, F., & Marglin, S.A. (eds) *Decolonising Knowledge from Development to Dialogue*. Clarendon Press.

Transcription (2010). Interview with Anders Wijkman 042910.

Transcription (2013). Interview with Johan Holmberg 021413.

Transcription (2013). Interview with Rolf Carlman 032013.

Tyfield, D., Lave, R. Randalls, S., & Thorpe, C. (eds) (2017). *The Routledge handbook of the political economy of science*. Routledge. doi.org/10.4324/9781315685397

Widstrand, C., & Valdelin, J. (1990). *An evaluation of the bilateral institutional research co-operation supported by Sarec*.

7 1998–2008

Constructing sustainable knowledge societies

> Access to relevant knowledge, insights into conditions affecting the prevailing situation and capacity for qualified analysis are basic conditions for development. … Countries with a vital research community can analyse experiences locally, as well as those gained in other parts of the world thereby identifying opportunities for constructive change and development.
>
> (Sida 1999, p. 3)

> Capacity development is not primarily concerned with filling gaps; it deals with building on what is already there.
>
> (Sida 2005, p. 7)

> In order to further increase the developmental relevance of its research projects, Sida/SAREC should, without neglecting long-term goals, consider giving a higher priority to projects that are able to directly or indirectly improve conditions for the poor, including projects that are able to increase economic growth in general, while securing an equitable distribution.
>
> (Boeren et al. 2006, p. 6)

> As globalization, information technology and the development of knowledge accelerate, increasing demands will be made on societies to become knowledge societies, i.e. to have the capacity to assimilate external knowledge and to profit from and apply this knowledge.
>
> (Sida-Sarec 1998/2000a, p. 9)

This chapter begins when Sarec had been a part of Sida for three years; the new organization had begun to settle in. It continued to be a very eventful time for both foreign aid and research politics in general. A new conservative government was elected in Sweden in 2006, and one of the areas that was changed rather drastically as a result was foreign aid. Sarec's policy development this decade reflects the diversity of changes occurring within the wider social practices framing Swedish research aid. Investigations, international agreements and changing national political priorities create a diverse policy landscape; influences from many different directions meet in the central documents of Sarec. As the title of the chapter

DOI: 10.4324/9781003033271-7

indicates, the *knowledge society* takes over as a sociotechnical imaginary and can be seen as binding the universalist and localist discourses closer together. This union is tense, however, and adamant defense of local priorities is combined with equally determined use of more or less general "models" for development. Emphasis on *systems* is stepped up, including *systems of innovation* towards the middle and end of this period.

The purpose of this chapter is to describe Sarec's research for development discourse between 1998 and 2008. A contextualizing section will introduce the chapter, including a glance into how the concept of capacity building is seen within Sarec's new context, Sida. An analysis of annual reports and policy and methods documents comprises the next section. The chapter then discusses how the evaluations of 2006 portrayed Sarec's activities and rounds off with a discussion on the disbanding of the organization in 2008. I seek to identify what futures are imagined, and how research is perceived to contribute to these. How does Sarec as a boundary organization fit into this equation? The main empirical materials used in this chapter are annual reports, policy and methods documents, interviews with two former directors and major evaluations.

The wider social practice: a snapshot

Large international development organization policy focused more on the role of science, technology and knowledge for development, as evidenced for example by the UN World Science Conference in 1999 (cf. Dahlman & Vishwanath 1999; World Bank 2000), and supporting research became a part of the aid agendas of more countries. Some major events affecting development cooperation and foreign aid around the world were the events of 9/11 in the United States and the wars in Afghanistan and Iraq (Odén 2006). International relations were negatively affected by this, and an increase in unilateral policies (more upholding of national interests) and changing global economic relations (the economic growth of China and India, for example) added to this development. At the same time, global challenges related to environmental degradation and climate change continue to permeate international cooperation, marked for example by the World Summit of Sustainable Development in Johannesburg 2002, ten years after Rio, as well as recurring Conference of the Parties (COP) meetings (Gupta 2010).

There was continued debate concerning the relationship between aid and development, and discussions were focused on donor coordination and achieving a combination of economic growth and poverty reduction, pursing market mechanisms alongside state regulation (Craig & Porter 2003; Nilsson & Sörlin 2017; Overton & Murray 2021). As a result of the critique of structural adjustment programs during the previous decade, poverty reduction came into stronger focus, ineffective aid was considered the culprit rather than low-income countries and broader development indicators were developed. There was also some debate and critical voices in the Swedish context, such as Thörn and Svanström (1999), who pointed to the need for long-term research collaboration, and Hydén (2007), who argued that donor interests were dominating agendas.

The Millennium Development Goals (MDGs) were set in 2000: poverty was to be halved by 2015 by targeting issues concerning human rights, conflict prevention and democracy. The achievement of the goals was thought to depend on significant increases of aid budgets, not least for countries in Africa. Several efforts to increase donor coordination and efficiency of support to the low-income countries were made. The largest of these efforts was the signing of the Paris Declaration on Aid Effectiveness by high- and low-income countries and international organizations in 2005, which was discussed in Chapter 2. Coherence between different areas of politics was also a debated issue – priorities within one policy area were not to negatively affect priorities in other areas (examples debated were for example agriculture, fishery and trade policies). Concerns were also voiced with regard to the effects of "land-grabbing" and the "race for Africa" by China and the US, for example. While multipolarity affected the global distribution of power, Western states continued to dominate the agenda of international organizations like the World Bank and the IMF (cf. King 2004; Wade 2013).

In Sweden, a parliamentary investigation called Globkom took place and eventually resulted in a policy for global development (PGD) in 2003. The PGD stated that a general goal within *all* political areas (trade, security, migration, environment, etc., not just foreign aid) should be to contribute to fair and sustainable global development in order to contribute to achieving the Millennium Goals (Prop 2002). Human rights and the perspectives of the poor were in focus and cooperation between actors was encouraged. The PGD was revised by the new government in 2007 (Gov 2007), and among other things, the central goal formulations were changed to include economic growth. In the late 1990s, a discourse of partnership and collaboration was increasingly emphasized over concepts like solidarity and aid (cf. Dahl 2001).

The discussion about the usefulness of research was turned up at notch during the 2000s, and with a slightly different direction. Research became more associated with innovation, but the links to application did not happen automatically; a big question therefore became how to go from innovation system to social and political action (Benner 2008). The complexity of the research policy and landscape in Sweden was reflective of the presence of many different rationalities and norms, according to Melander (2006). Mode 2 coexisted with Mode 1 and the PLACE-norms were complementing CUDOS (Melander 2006).

Three research bills were produced in Sweden during this period. The first two, from 2000 and 2004, discuss research aid more than the last one from 2008. The 2000 bill stated that research aid benefited the internationalization of Swedish universities, and this in turn positively impacted the preconditions for Sida-Sarec cooperation with other research councils (Prop 2000). The 2004 bill focused on the PGD and upheld the importance of other research councils than Sida-Sarec taking responsibility for development-related research (Prop 2004). The research bill from 2008, which was the new conservative government's first research bill, encouraged international research cooperation primarily on the basis of a shorter term mutual-interest argument, mentioning countries like China, India, Brazil

and South Africa (Prop 2008, p. 205). Low-income countries were mentioned as important – but as a *group* – and in relation to Sida's work for capacity development (ibid., p. 234). One interpretation of this is that research cooperation with low-income countries was considered relevant mainly on the basis of solidarity, not mutual interest. Research seems relatively well recognized as a tool in foreign aid policy, while development-relevance seems to be considered more like a desirable *side effect* in research bills.

Sarec within Sida: building new capacities?

The concept of capacity building was central in the policies of Sarec from the beginning, so one might wonder if there were any changes after the merger with Sida. Around the same time as Research Cooperation I and II came out (1998/2000a), Sida published a policy for capacity development as a way of renewing commitment to this method in its work: "Our principal method is capacity and institution development. Knowledge is our most important resource" (Sida 2000, p. 8). This document also maintained that the relationship between the state, the market and civil society was changing, suggesting that capacity needed to be strengthened in all three parts. It was not more specific as to what these changes consisted of, but the policy stated clearly that Sida's support to "national systems of education, training, and research" would increase in all projects and programs (ibid., p. 10). It becomes clear from a comparison of policies that although capacity building or development as a method was portrayed somewhat differently by Sida and Sarec, there were also many similarities.

Capacity was defined by Sida as "the conditions that must be in place, for example knowledge, competence, and effective development-oriented organizations and institutional frameworks, in order to make development possible" (ibid., p. 9). The policy for capacity development also discussed definitions of various concepts relevant to capacity building. One example of this was the distinction between *knowledge transfer* and *knowledge development*, where the policy stated that the two concepts represented two different approaches to the learning process. The idea of knowledge *transfer* was compared to traditional technology transfer – the import of "ready-made" technology from high-income countries to low-income countries. Knowledge development, on the other hand, was seen as valuing the process of social interaction between different actors – rejecting the idea that any ready-made solutions exist that fit everywhere (ibid., pp. 18–19). The policy urged Sida staff to conduct detailed contextual analyses in the planning phases of projects, bearing in mind a systems perspective as represented by the model of capacity building. A way to operationalize this was to use checklists in order to identify what the problems and solutions might be.

Five years later, in 2005, a manual for capacity building was published with the goal to further concretize how staff at Sida were to work with the method, how to conduct contextual analyses and decide on appropriate measures. It was a document to guide Sida employees in their planning of daily work. The report aimed to answer a number of questions, for example: "How can we, as outsiders,

contribute to something which basically concerns learning and which must grow from the inside? What should the interaction between partners look like? Which role should and can Sida play?" (Sida 2005, foreword). These questions highlighted the importance of *context-specific* development and pointed to the potential problem of attempting to contribute to local processes from an external point of view. To make the demand-driven and context-sensitive aspect clear, the manual underlined the difference between capacity *development* and capacity *building*, where the latter implies that there was nothing there to begin with. Capacity, the manual states, has to grow from the "inside" – though certain stimuli from "outside" can help (ibid., p. 13). These issues were further problematized with a reference to the need to work more intensively with other donors – having different definitions of capacity and how to build capacity could be a challenge. At the same time, the manual stated that the focus on capacity and cooperation as opposed to knowledge and technology *transfer* among donors had only become clear in the late 1990/early 2000s, and that the level of agreement surrounding its meaning was increasing.

The manual's model for analysis was similar to the one in the policy for capacity development document from 2000, portraying capacity as consisting of the different levels: individual knowledge and professional skills, units in an organization, organization, system of organizations, institutional frameworks and environment/contextual factors. This discussion is very similar to the one in Sarec's own policies. The different levels are discussed in turn, focusing on five points of departure and examples of questions that can be asked in order to assess current capacities and decide on appropriate measures and methods. This approach is also compared to previous capacity-oriented measures, which according to the manual had until the end of the 1980s focused more heavily on individual capacity (Sida 2005). The guidelines in the manual were quite vague in one sense and very concrete in another. Each context is portrayed as unique, so the list of assessments to be complete prior to "engaging" would potentially be very long:

> Capacity development is thus both a goal and a means to achieving goals throughout all development cooperation … there are no ready-made solutions to the problem or how individuals, groups or organizations can develop their capacity. Sida works in extremely complicated environments and the needs for capacity have to be analysed on the basis of their specific context.
>
> (ibid., p. 12)

Capacity building is here said to be both a goal and a method, something that exemplifies the plasticity of the concept. The quote above might imply that the manual remains relatively general, yet it gets very specific as it breaks down this broad ambition into concrete recommendations. One of this chapter's introductory quotes from the manual discussed above suggests that capacity development does not focus primarily on filling gaps. Later on in the same document, however, it is suggested that staff identify existing capacity gaps in organizations and that

these should serve as points of departure (Sida 2005, pp. 39–40, 58). This might illustrate that it is difficult to be a careful outsider as well as a productive "aider" or cooperative partner. The manual contained several models and definitions relating for example to how learning and organizations work, at the same time as it stated that there are no set models and all situations needed to be tailor-made. It seems to be difficult to be both context-flexible and prescriptive at the same time. This is a theme that also can be followed in the subsequent evaluations of capacity development policies.

The policy and the manual for capacity development were of a central kind at Sida, but several evaluations and working papers on the topic were also produced during this decade. One of these was a report published just one year after the manual, in 2006. It was based on a two-day seminar in Stockholm held mainly in order to discuss the effects on Sida's capacity development approach of Sweden's PGD and the Paris Declaration (Sida 2006). The seminar discussions underlined a need to strengthen the notion of capacity development as an "endogenous process that can be stimulated, but not engineered, from outside" (ibid., p. 6). One of the conclusions was that these two policies (PGD and the Paris Declaration) created considerable challenges for Sida's work with capacity development since they prioritized potentially *competing* aspects of capacity. Apart from the need for improved donor coordination, the concern was that the more directly pro-poor capacity development discussed in the PGD might be outmaneuvered by the capacity discussed in the Paris Declaration – which focused more on the capacity of governments and other national actors to manage finances. The report included summaries of discussions, but also texts authored by presenters at the seminar, and thus provided many different perspectives on capacity development:

> Sida and other donors need to let go of the control approach and instead look more for opportunities for learning, thereby allowing for much more flexibility in our support. We must let go of the underlying notion of viewing Sweden as the norm. Consequently, we should not only use Swedish resources in the programmes. There are additional possible solutions, such as tripartite, south–south and local consultants.
>
> (Sida 2006, p. 17)

> Capacity is such a strange concept. It does not fit well into a system of bureaucratic control. … Although it is acknowledged to be important, it is not deemed important enough to make the agencies change their procedures to deal with it in a serious way.
>
> (Sida 2006, p. 31)

There are more examples, but what the quotes above seem to reflect is a lack of faith in the method of capacity development as it was being used by development agencies – due to path dependence for example. Certain ideas – explicit or implicit – were not seen as compatible with capacity development – such as upholding Sweden as the norm or using Swedish resources where better ones

may be found in other countries. Development agencies in general were seen as not committing well enough to the policies in this area. The second quote (presentation by Heather Baser and Peter Morgan) also lamented the growing focus on *measurable* results in aid, claiming that capacity is difficult to evaluate since it "relates to issues with little specificity or visibility, such as legitimacy, 'positioning', empowerment, relationships (social, personal, professional), trust, dialogue, protecting space, volition, identity" (Sida 2006, p. 34). It may or may not be a contradiction, but there were many references to the need for *more flexibility* in the method of capacity development, yet one of the concluding remarks of the report was that more concrete tools were needed. The report lifts Sarec as the actor within Sida with most experience in building endogenous capacity within the area of research, but it does not delve very deep into how this can contribute to the wider discussion.

There had clearly been a considerable amount of discussion going on about capacity building – including a push to emphasize a systems perspective and context-specific measures – not least since the late 1990s. The story told above illustrates the complexity of balancing different policies and demands (demand- or supply-led, results or process orientation, management capacity or more directly pro-poor capacity). The tale could continue, but suffice it to say that capacity seems to have been a contentious concept in the 2000s, quite different in what it entailed when compared for example to Sarec's earlier use of it. Kjellqvist (2013) maintains that these later capacity building conceptualizations within Swedish aid downplayed the human and material aspects and risked increasing dependencies instead of the reverse.

Localist universalism continued: evolving modes of support and priorities

Sarec's priorities were more clearly outlined in the official policy and methods documents from the 1990s and onwards (Bhagavan 1992; Olsson 1992; Sida-Sarec 1998/2000a). The picture of the priorities becomes more nuanced and complex when also taking into account the annual reports, evaluations and interviews. This particular period's annual reports had, in contrast to previous years, different kinds of titles that highlighted certain aspects of research aid. *A Sea of Opportunities*, for example, refers positively to all the possibilities that research aid had created since Sarec's inception, and *Research for Life* focuses on the importance of all kinds of health-related research.

As with the organizational changes implied by the merger in 1995, Sarec stopped publishing annual reports when the government decided to reorganize Sida. Resources were prioritized differently at times like that. For the period of 2006–2008, I have looked at Sida's annual reports and some smaller research-related evaluations instead, though not all of them have been explicitly used in the chapter. As with the period 1995–1997, the information on the research aid activities in Sida's reports tended to be less detailed than in Sarec's reports. They nonetheless provide interesting snapshots of continued activities and

issues, such as illustrated by the quotes below from Sida's annual reports 2006, 2007 and 2008:

> Ideas about knowledge driven economic development has reached the aid debate in recent years, increasingly pointing at the value of research and development. Sida's experience of the area is unique thanks to the systematic and long-term support it has provided to research institutions.
>
> (Sida 2006a, p. 61)

> Few donors have developed mechanisms for bilateral research support. The research supported is mainly for knowledge development and go to either international or regional research programs or to projects which are applied for and managed by the countries' own researchers. … With growing preconditions in the cooperating countries it is reasonable to expect bilateral research cooperation to grow amongst other funders.
>
> (Sida 2007, p. 68)

> Investments in research contribute to economic growth in many different ways. Academic research increases capacity to solve scientific and technical problems and creates new instruments and methods. Research contributes to higher quality in the education of students and thereby to increasing the level of knowledge of the workforce in general.
>
> (Sida 2008, p. 50)

The Sida reports continued to uphold the two-pronged strategy of contributing to research capacity building and supporting development research. One can find similar types of arguments as in the Sarec reports, except they are presented in a more condensed manner. Long-term capacity building and the importance of coordination with other donors is highlighted given the increasing attention to research for development. Sida-Sarec's experience is upheld as unique and emancipatory in this context; other donors were expressing interest in following their bilateral cooperation example – and rightly so, according to Sida.

Research Cooperation I and *II* – the policy and methods documents from 1998 and 2000 – were produced in order to lay out guidelines for all activities at Sida concerning research, and to present the central ideas and methods concerning research aid activities. Furthermore, the publications were intended to serve as a basis for comments, debate and discussion on the principles and practices of aid to research. A distinction is made between research as a *support function* versus research as a *subject for support*, where the latter involved capacity building and support to thematic research (Sarec's main task). The research as support function was more short-term and directly linked to the need for new knowledge in relation to development projects. Most funds for research were for research as a subject for support and went through Sarec (670 of the 700 million crowns going to research in 2000). Other research activities (research as support function) at Sida were included in the standard development programs or funding of research for

internal use. There was still a separate Sarec budget, though some of the research cooperation projects were being incorporated into Sida's country strategies. The part of the budget that went to Sida's standard development programs was used for example to produce impact studies and evaluations.

Research capacity is framed as necessary for producing knowledge for "positive and sustainable development, including the eradication of poverty" (Sida-Sarec 1998/2000b, p. 7). Scientific knowledge is essential; it can improve agricultural yields and health care, alleviate environmental problems, promote democratic processes and prevent conflicts. It is also pointed out that these do not just represent acute problems. Research is portrayed as being important for three main reasons; first, it enables locally relevant knowledge production (including the ability to make use of "general knowledge" and international research findings) as a means to solve national problems. The second reason is that universities are "important cultural institutions and constitute one of the most important forums for critical analysis and debate on various social conditions" (ibid., p. 9). Finally, research capacity is also seen as contributing to the quality of higher education. These reasons will sound familiar by now, indicating a kind of stability in the policy over the decades. Nevertheless, ideas about which activities contributed to these goals continued to evolve, and some novel conceptualizations developed this decade. As the chapter's beginning alluded, the policy envisions research is a crucial part of knowledge societies. Higher education and research are considered important parts of a country's knowledge system, which in turn involves interaction and links with the rest of society as important factors.

Sarec's overarching goal was to "strengthen the research capacity of developing countries and to promote development-oriented research" (ibid., p. 10), and they did so mainly through supporting bilateral cooperation (building national research capacity) and thematic research (which mainly consisted of support to international and regional research organizations). Research capacity was seen as a prerequisite for being able to conduct development-relevant research, but the two modes of support were often seen as overlapping. In other words, the policies uphold that there are usually capacity building aspects to the thematic support, and bilateral support could include support to development-related research projects (results).

Between 55 and 63% of the research aid budget during this decade was allocated to thematic research, and between 25 and 32% to bilateral support. Swedish development research was allocated between 8 and 12%. Africa was the prioritized continent, and the countries that Sarec worked with (as of 1999) were Eritrea, Ethiopia, Mozambique, Tanzania, Zimbabwe, India, Sri Lanka, Vietnam and Nicaragua. One hundred and thirty Swedish university departments were involved in bilateral cooperation with partner countries, sometimes also in collaboration with other donor country universities, regional networks and universities from other countries in the global South. An example of bilateral cooperation was support to strategic planning for university development in Mozambique. The year 1998 marked 20 years of cooperation with Eduardo Mondlane University (UEM), and results included many trained staff, a stronger institution

and a significantly reduced dependence on external teaching staff. Focus turned to lessening dependence on external finances through development of strategic plans alongside continued institutional support and support to research training. Some supported areas included anthropology, biotechnics, chemistry, history, engineering, law, marine biology, medicine and physics. Institutions involved from Sweden included Chalmers University, Göteborg University, Karolinska Institute and Lund University (Sida-Sarec 1999, 2004). ICT projects were also part of bilateral cooperation. Universities were seen as important "focal points" for ICT in society in the struggle to overcome the "digital divide"; hence, both Sida and Sarec were in different ways contributing to building "ICT backbones" in the low-income countries. Sarec's emphasis was to ensure the connectivity of universities (Sida-Sarec 2001, 2002, 2005). Support to research in Bolivia focused on the public university work on policy and research management at Universidad Mayor de San Andrés (UMSA) in La Paz and Universidad Mayor de San Simón (UMSS) in Cochabamba. Lecturers were enrolled in PhD training, research teams were formed and certain infrastructure support was provided. Projects going on were within history, archaeology, environmental science, chemical engineering and biogas research (Sida-Sarec 2004).

In terms of support to Swedish development research, the Sida-funded Swedish Research Links funding started in 2002 and enabled regional research cooperation between countries in Asia and South Africa and Swedish universities. It was administered by the Swedish Research Council in cooperation with other research councils. Its main aim was/is to promote internationalization of Swedish research through cooperation with developing countries (middle-income countries, mainly) focused on results and based on mutual interest (Johansson de Château & Billfalk 2007).

It is worth noting that although the annual reports are quite informative, the level of detail when it comes to description of activities in different countries varies greatly. The annual reports from 2004 and 2005 were organized more thematically, for instance, than the others. The 2005 report was the most differently organized – divided into sections based on the MDGs and how Sarec activities contributed to the achievement of these. This is interesting in that it provides different perspectives on what Sarec did, but it also makes it more difficult to get an overview of all the things being done within one mode of support and/or in one country any given year. Funds spent are reported according to continent or thematic area rather than per organization.

The 1990s saw a reduction in priority of social sciences and the humanities within Sarec's activities; for example, natural sciences and technology, health and agricultural research dominated the agenda. By 2001, however, renewed interest in social science perspectives on development and poverty reduction was expressed, not least since low-income countries had to write poverty reduction strategy papers (PRSPs) in order to get loans from the IMF and the World Bank. It is an example of how a boundary organization had to balance demands from both the academic and political spheres.

Strengthening entire institutions

The idea of one university per country was launched in the early 1990s and had become central in the policies of this decade. The argumentation for having one research university per country continued to be based on the same kind of reasoning as in Olsson's position paper from 1992 (discussed in Chapter 6). A systemic view of the role of research in development is put forth in the policy and methods document from the beginning of the decade. Sarec argues, with high-income country universities as the comparison, that the building of national capacity requires supporting the "whole":

> While research, in advanced countries, is considered to be of strategic importance for economic growth and development, such a connection is less obvious in poor, developing countries. The impact of research is rarely direct and immediate. Research projects that lead to sensational breakthroughs invariably build on a significant amount of earlier research. Applied research is based on a solid basis of theories and methods and on a cadre of researchers following research in relevant disciplines. In poor countries, where such a basis is very weak, the likelihood of producing applied research of reasonable quality is meager. When endeavouring to build up an essential basis of national research, it is not enough to look for individual research skills, the whole "architecture for research" must be considered.
>
> (Sida-Sarec 1998/2000a, p. 22)

One of the most important tasks of the university, according to Olsson, was the contribution to the quality of higher education; an increased number of qualified researchers were able to teach, and also made current research a part of the education (Interview Olsson 2009). At the same time, it was important to highlight higher education and research as separate issues due to trends within foreign aid in general:

> Somehow it seemed like foreign aid in general had this idea that universities in low-income countries should teach – not do research. Certain individuals can get a chance to do research, but not the universities in general. So we decided that each country needs a research university. There should be at least one university which can both teach and "reproduce its own capacity".
>
> (ibid.)

Sarec framed universities as a part of a country's knowledge system, and the aid actor (Sarec) was seen as contributing to development by both strengthening research capacity at universities (through bilateral support) and supporting development research (through thematic support). Different levels of capacity were defined in Sarec's policy and methods documents; individual, institutional, national, regional and international. Universities were seen to have many

Figure 7.1 Research aid as portrayed by Sarec's policy

roles, and though Sarec's policies focus on research, other important roles were often mentioned as well, like provision of higher education and contribution to democratic development. The figure above illustrates how Sarec envisions that research aid contributes to development.

Many other agencies, stated Olsson, tended to focus on quite narrow and thematic support instead of institutional capacity building. Other actors, like the World Bank, had pushed for privatizing reforms within higher education in low-income countries, treating knowledge as a private rather than a public good. According Mamdani (2007), such reforms at Makerere University in Uganda resulted in several problems. If one wants to support capacity building, Olsson maintained, it is better to approach a university and ask "in what way can our agency best support your university development plans?" (Interview Olsson 2009). This way, structures and processes are supported without a priori steering which the priorities *should* be; something that she meant was fairly common when *thematic* assistance was offered. Thematic support tended to be narrower and more specific, she said, more tied to the donor countries' interests and expertise (and not necessarily something that will contribute to the capacity of the university). Olsson also considered it important to coordinate among donor agencies together with the low-income countries in question in order to make efforts effective and relevant (ibid.).

Sandwich training remained the main method through which to contribute *to individual capacity building*, where the PhD students spent time both in their home country and at institutions in Sweden. Since the sandwich program included an

intention to counteract brain drain, it is interesting to note that the Globkom investigation warned Swedish universities not to attract students and PhDs from low-income countries. This was in the context of suggesting that Swedish universities should take more responsibility for including low-income countries in their internationalization strategies and not just rely on aid money (Globkom 2002, pp. 96–97). It could be seen as a manifestation of the tension between values and policies coupled to aid versus those related to research.

Based on the view of the enabling capacity of new ICTs, Sida and Sarec supported the development of ICT *infrastructure* at universities. This was seen to enable more efficient communication between researchers as well as to improve access to scientific publications (Sida-Sarec 1998/2000a). New ICTs were also considered as having many potentially positive impacts on education (distance learning, student active learning, etc.) and the administrative capacity of the universities could be significantly improved (regarding student registration, library information systems, website management, etc.). In general, universities were considered focal points; they could play an important role for the countries ICT development (Sida-Sarec 2005).

Thematic research

Thematic support could only modestly contribute to sustainable development, maintained Sarec. This kind of support was framed as a supplement to – and enhancement of – the support to national capacity building (bilateral support). Thematic research was called "research *for* developing countries", whereas bilateral support was "research *within* and *by* the countries" (Sida-Sarec 1998/2000a). Sarec continued to distinguish very clearly, in other words, between the different modes of support and the kind of knowledge production they entailed. The effects of thematic research (general knowledge aimed at being relevant for many contexts) were not considered optimal, as exemplified by the quotes below:

> The purpose of these programmes [*such as the WHO and CGIAR*] is to provide an overview of existing knowledge and research, to identify neglected research areas, promote relevant research on such gaps, and to translate research findings into recommendations for different situations. Unfortunately, the impact of such findings has been marginal in many of the least developed countries. They have limited capacity to follow and make use of new knowledge, as well as limited capacity to participate in and influence international research. As evident from the development literature, problem formulation and analysis is often dominated by researchers from the North.
>
> (ibid., p. 20)

> In our support for international research, a "South perspective" is being promoted in terms of the research agenda and in terms of ensuring proper representation from "the South" in decision-making structures. This

> influences not only the orientation of the research. It contributes as well to situated perspectives on global issues.
>
> (Sida-Sarec 2002, p. 4)

As in previous decades, however, thematic support continues to receive a very large part of the budget, and the policies also relatively consistently uphold the importance of both kinds of knowledge: "Problems, such as lack of water or a high infant mortality rate, are linked to various local conditions and must be met with a combination of general and local knowledge" (Sida-Sarec 1998/2000a, p. 9). Furthermore, Sarec maintained that a trend had started within international organizations in the 1990s that implied greater cooperation with low-income countries on agenda setting, for example (Sida-Sarec 1998/2000b, p. 27).

Thematic support to research in large international organizations continued. Support was also provided to regional research councils like CLACSO, the Latin American Council of Social Sciences; CODESRIA, the Council for Development of Social Science Research in Africa; OSSREA, the Organisation for Social Science Research in Eastern and Southern Africa; and APISA, the Asian Political and International Studies Association. This enabled funding for research and stronger links between researchers and policymakers in low-income countries and regions (Sida-Sarec 2005). Support was also provided to the regional research network BIO-EARN (East African Regional Programme and Research Network for Biotechnology, Biosafety and Biotechnology Policy Development), which enabled researchers from Ethiopia, Kenya, Tanzania and Uganda to build capacity within biotechnology issues and promoted research and policies in order to minimize the risks with biotechnology and sustainably improve livelihoods and food security (Sida 2006b).

In order to achieve "optimum impact", research funding was to be as catalytic as possible, limited in terms of geography or thematic areas, and directed towards areas where Sida and Sweden were seen to have *comparative advantage* in terms of capacity and resources (Sida-Sarec 1998/2000a). The focus of thematic support was to be guided by a number of criteria and ambitions, for example, Sida's action programs: poverty reduction, sustainable use of natural resources, gender equity and democracy and human rights. Cooperation with other Sida programs was desirable where possible, as well as collaboration with other agencies when appropriate. Potential *innovation opportunities* were also to guide the focus. Together, all these considerations resulted in a number of thematic priorities:

- Sustainable use of resources (issues like food security, sustainable agriculture, energy technology, environmental economics)
- Health (health systems and health policies, children's health, sexual and reproductive health, HIV/AIDS, tropical diseases and vaccines
- Technology (biotechnology research capacity, bio-safety, biotechnology policy, support to basic sciences)

- The political, economic and social dimensions of development (changes in political systems, economics, systems for education and research, gender equality)

(ibid., p. 15)

Multidisciplinary research is also mentioned in this context, as a kind of knowledge that takes research closer to policy relevance. With the exception of increased focus on biotechnology and associated issues, most of the prioritized areas existed prior to this decade and in that sense do not represent anything new, though they are presented in a slightly different way.

Swedish development research is classified as thematic because it was not by default coupled to bilateral support. Its results, however, could be of interest to low-income countries. Two main reasons for supporting Swedish research with development relevance was to ensure that Sweden had – and improved – its development-related research capacity, and it also made more universities able to engage in development cooperation projects (Sida-Sarec 1998/2000a).

Reducing poverty through sustainable development

Sarec's policy and methods documents maintained that natural catastrophes, civil wars and environmental destruction added tensions between national and global interests, also affecting aid (Sida-Sarec 1998/2000b). *Global security* was a concept that became commonly used within aid circles; it captured the problems of threats to both human welfare and the environment. At the same time, positive development trends were clear; child mortality rates had halved by 2000 compared to 1960, malnutrition rates were significantly reduced and primary school enrollment had improved (ibid.).

The relationship between research capacity and development was framed in relation to *sustainable development* during the 1990s, and the increased focus on *poverty reduction* in the 2000s as a Swedish foreign aid goal strengthened this framing. The focus on poverty reduction also sparked a renewed interest in the social and economic aspects of sustainable development. The annual report from 2001 maintains that the first decade of Sarec's existence included a more active support of social sciences since it was a way to counteract political oppression in Latin America, for instance, whereas the attention in the 1980s and 1990s was more directed towards natural sciences and technology:

> Today, countries are expected to formulate and implement strategies for poverty reduction. Economic growth remains an important part of such strategies. However, increasing attention is now being directed to the social context. In order to assess opportunities and develop appropriate strategies, countries must analyse the complex causes and multi-dimensional expressions of poverty.
>
> (Sida-Sarec 2002, p. 3)

> Social problems are often linked to health and technical issues. Accordingly, social science components are to an ever-increasing degree integrated in projects and programmes that formerly had a tendency to be of an exclusively "technical" nature, such as construction of various forms of infrastructure, agricultural development and health programmes. Sida is consequently stimulating social scientists to co-operate with natural scientists and technicians.
>
> (Sida-Sarec 2002, p. 24)

The report talks about the general importance of "critical scientists" for the countries, but the focus on social science is, as illustrated by the quote above, also considered important in light of the demands for PRSPs by the World Bank and IMF. By 2005, more funds had been provided to subjects like economic planning, democracy and human rights, pedagogy, and gender and demography, mostly within regional and bilateral support (Sida-Sarec 2006b).

In this context, it is of interest to mention a Sida report from 2003 that dealt with the relationship between environmental problems and poverty. It was a joint publication by Sarec and the environmental policy division intended as a contribution to an evaluation being conducted of the Swedish Foundation for Strategic Environmental Research (MISTRA). The evaluators of MISTRA wanted input on the environmental challenges facing low-income countries in order to make suggestions for MISTRA's future strategies (Sida 2003). The report was critical of a number of things and points out that the way economic factors were allowed priority at the time was not conducive to sustainable development in any way:

> Economic incentive structures play a major role in driving environmental change, as individuals (and nations) act in their self-interest with little regard for others or for future generations … There is a complex and mutually reinforcing, two-way relationship between poverty and the environment, sometimes referred to as the poverty-environment nexus.
>
> (ibid., pp. 5–6)

Poverty and environmental degradation are seen as mutually reinforcing given that environmental problems make livelihood more difficult for people with less resources; everyday challenges of survival are prioritized over long-term issues. Environmental problems are not – and cannot be – the fault or the priority of poor people (ibid.). The report takes a critical stance in relation to those who did not recognize the value of nature or those who put too much faith in the power of science:

> Ultimately policy is a function of prevailing power structures, norms, values and knowledge. There is often insufficient knowledge of the economic consequences with regard to the environment of a particular set of policies. Frequently there is little understanding of the value of the resilience of biodiversity to human life and processes. There is a common belief that the

> biosphere is endless, that nature has its own healing mechanisms, and that environmental destruction is not irreversible because science can always fix whatever change is occurring.
>
> (ibid., p. 8)

The global and the local are portrayed as inextricably intertwined, something made clearly visible in the case of environmental problems and their unequal effects on already unequal relations. The sociotechnical imaginary this projects is bleak; visualizing science and technology contributing to a strengthening of destructive forces, driving society and the environment in a negative direction. The imaginary was equally bleak a few years earlier, in the policy and methods document, where Sarec stated that "to avoid irreversible global catastrophes", high and low-income countries must "jointly embark on the road to sustainable development" by innovating and reducing consumption (Sida-Sarec 1998/2000b, p. 21). Environmental problems are portrayed as being mostly the fault of the high-income countries, but sustainable development is constructed as something only possible if the high- and low-income countries join forces.

MISTRA's recommended future priorities were in the areas of: human development needs and ecological system survival; satisfying future food demand; sustainable livelihoods in degraded areas; sustainable management of coastal habitats; energy for sustainable development; climate change adaptation; atmospheric haze and development; and sustainable urbanization. They argued that research should be interdisciplinary given that sustainable development has several dimensions requiring several disciplines (social, economic and environmental). The report also underlined that results should be *applicable*, and that collaboration with low-income country researchers and contribution to local capacity building were essential (Sida 2003). Sarec's annual report from 2004 argues along similar lines: natural resources have to be managed sustainably in order for a country to be able to achieve development:

> Sustainable use of natural resources is a precondition for economic growth and crucial if developing countries are to escape poverty. It involves innovation, development of new products and adaptation of technologies. Economic policies, institutions and systems that are conducive to growth are also important. However, economic growth does not eradicate poverty by itself but needs to be combined with governmental interventions that allow for a fair distribution of resources and investment in sectors such as health, education and social security systems.
>
> (Sida-Sarec 2005, p. 33)

What is interesting to note here is that sustainable development is framed as a prerequisite for economic growth, which in turn can only reduce poverty if measures are taken to ensure equitable distribution of wealth. How these pieces of the puzzle are all seen to fit together, however, is not as consistently portrayed this decade. Both the localist and the universalist discourse are strongly expressed

to the point where quite concrete contradictions appear. One such example concerns how economic growth is seen to play into development, something that becomes clearer when one looks at the discussions about innovation.

Imagining research within innovation systems for development

The concept of *innovation* had tagged along since Sarec's beginning, and a "systems-thinking" was not new either in the sense that different actors, policies, institutions and other components and conditions had been envisioned to depend on each other in the national context. In the 2000s, however, the use of "systems of innovation" appeared more consistently, implying something a little different, as illustrated by this quote from the 2004 annual report:

> A term that is used diligently is "innovation", in particular in an attempt to intensify cooperation between universities, authorities, politicians and the private sector in order to convert research into practical solutions. One of the challenges for cooperating countries is in building a national capacity to modernise innovation structures and policies. Research councils and universities have central roles, as do the private sector and authorities.
>
> (Sida-Sarec 2005, p. 40)

It is not clear from the 2004 report *where* the term is used diligently, but universities are envisioned as important parts of national innovation systems. Universities produce peer-reviewed research results that should then "find their way to applications and users" through cooperation with other actors (Sida-Sarec 2005, p. 17, cf. pp. 15, 39). A more detailed discussion can be found in a Sida-Sarec report about innovation systems in Latin America from 2005. Reference is made to Joseph Schumpeter's ideas (Schumpeter 1934, 1942) regarding the importance of research, development and entrepreneurship, and the cooperation between firms and organizations in the production of innovations. The report also refers to others who studied innovation, Triple Helix and innovation clusters later in the century (Alänge & Scheinberg 2005, pp. 10–14). On the basis of these references, the report underscores the importance of supporting knowledge flow between local actors (as well as their connections to important international actors) as a way to support innovation. The role of innovation in economic development and job creation in industrialized countries is used as an example to follow, and many crucial *links* between the significant actors were described as missing in low-income countries:

> Developing countries do not typically show these characteristics of well integrated local innovation systems. Instead, both essential actors may be missing and in addition essential links between the existing actors could be missing, a condition where the local innovation system can be seen as an "infant local network".
>
> (Alänge 1987, pp. 238–239, quotes in Alänge & Scheinberg 2005, p. 12)

The role of economic growth vacillates a bit; sometimes it is a *prerequisite* for sustainable development and sometimes it is an *effect* of sustainable development. Where poverty reduction comes in is not always clear either; the main point is that all of these are seen as interdependent. The parallel increased focus on social sciences seems somewhat separate from discussions about what is important for innovation systems, where the "hard" sciences more often figure:

> Engineering sciences, technological skills and analytical capacity are required for direct and indirect ways of combating poverty. It is therefore important for low-income countries to reinforce their capacity in finding their own niche for product development. Research may lead the way to production suitable for local conditions, as well as for export. A significant extension of the Sida support to strengthening research capacity at three faculties in Eastern and Southern Africa (Makerere University in Uganda, University Eduardo Mondlane in Mozambique and the University of Dar es Salaam in Tanzania) was approved in 2004. This will focus on technology given national priority within the countries, i.e. environmentally friendly technology for sustainable utilisation of natural resources, development of rural and urban infrastructure, renewable energy and energy systems and development of ICT.
>
> (Sida-Sarec 2005, p. 40)

Innovation systems were also referred to as *techno-economic systems* in the literature to which the Sida-Sarec report from 2005 referred, something that reflects the centrality of technological sciences as well as the goal of economic growth in the academic history of the framework. Though technologies are considered important in Sarec's policy documents overall, they are also regarded as entailing risks: "as the countries of the South are drawn into the net of a globalized economy, they cannot avoid responding to the promise and threat of borderless Science and Technology" (Sida-Sarec 2001, p. 27). Suitable policies are required in order to counteract the uneven distribution of its benefits. New ICTs, biotechnology and new materials technology were technological transformations referred to as significant at the beginning of this decade. It was one of the themes Sarec thought were important to consider when planning future research aid:

> They (*the technological transformations*) have brought about deep changes in the production, distribution and consumption of goods and services, right across the economy and society, with more unforeseeable changes in the offing. They are radically altering the living and working conditions of people in the North and will do so in the South in the not too distant future. … Just as the advance of the first industrial revolution two hundred years ago proved unstoppable, the new technology is here to stay, its global march seemingly inexorable.
>
> (Sida-Sarec 1998/2000a p. 11)

These technologies are in the policy and methods document from 2000, portrayed as creating considerable changes and challenges for society. While the description above might appear slightly technologically deterministic in tone, the discussion continues and deals with issues of how the "South" can meet these challenges and the impact of new technologies through policies and actions. Research capacity building is portrayed as an important readiness, as well as "institutional reforms and innovations, accompanied by the mobilization of indigenous stakeholders for agreed action" (Sida-Sarec 1998/2000a, p. 11). Research on – and transfer of – sustainable technologies are also considered an important part of the solution.

Returning to systems of innovation, it would seem from the annual reports that this framework was enthusiastically "rolled out" and received, promising potential leapfrogging effects:

> Harnessing innovation to reduce poverty and raise standards of living is the goal of the Innovation Systems and Clusters Programme in Eastern Africa, which aims to fast-track economic development in the region. Supported by Sida, the programme involves the University of Dar es Salaam in Tanzania, Makerere University in Uganda, and Eduardo Mondlane University in Mozambique. The seed of the idea was planted in 2003 and in 2005, with Sida's support, intensive training courses were held in Tanzania and Uganda. The result was 15 pilot projects established in both countries, with first results expected during 2006. Cluster initiatives are organised efforts to increase growth and competitiveness, involving firms, governments and the research community.
>
> (Sida-Sarec 2006b, p. 31)

Innovation is framed as a way to turn research results into concrete poverty reduction action through economic growth. As a result of positive experiences with the African case, Sarec decided to also test working with the framework in Latin America. On the basis of the research discussed in the Sida-Sarec report on innovation systems in Latin America, Alänge and Scheinberg (the evaluators who conducted the study and wrote the report) set out to examine to which extent universities were entrepreneurial, how the researchers perceived their relation to commercialization of research, whether or not stakeholders in the region collaborated, and how other factors (such as laws, values, customs, history or competence) hindered or enabled innovation activities (Alänge & Scheinberg 2005, p. 15). Sida-Sarec held workshops with the purpose of engaging the "cooperating countries" in a discussion about innovation systems:

> In order to establish a dialogue with cooperating countries concerning innovation, Sida has supported seminars and workshops with researchers, politicians and representatives of the industrial sector in Eastern Africa and in Bolivia, Nicaragua and Honduras. The main purpose of the workshops has been to stimulate awareness, cooperation and debate on the role of clusters in the development of innovations.
>
> (Sida-Sarec 2005, p. 40)

There is debate regarding what innovation systems are for. Some researchers maintain that it has leftist origins, aims to adapt to local contexts and can lead to development in a wide sense, while others underline certain kind of technological output and economic growth (cf. Benner 2008; Eklund 2007). It is of relevance to ask how Sida and/or Sarec understood the concept given that it has several different "schools". In the beginning of the decade this was quite diffuse, but towards the middle and end of the decade innovation systems are more clearly defined as systems to promote *both* economic growth and poverty reduction. All sciences are seen as important in this system, but technological sciences are somewhat more prioritized.

This conceptualization of innovation systems is an interesting example of how the discourses intertwine and/or clash, depending on how one sees it. On the one hand, it is framed as a model that is firmly based on local conditions; "Innovative approaches to capitalize on research findings for economic growth share a common theory but in practice build on local actors and conditions" (Alänge & Scheinberg 2005, p. 5). At the same time, it consistently identifies gaps and recommends a presumed adequate *form* for development, telling the low-income countries "how" to develop in some sense. To a certain extent it also prescribes what is reasonable to pursue within this model, all the while singing praise to the importance of local priorities, local context and the situatedness of learning.

The picture of the aid actor: unique, context-sensitive and emancipatory

In the 1998/2000 policy and methods documents, Sarec's history is discussed in broad terms, telling a story about how priorities went from supporting just international research organizations, to funding national research councils, to focusing on sandwich research training and certain research projects, to research infrastructure and university-wide/institutional support. The impression one might get is that Sarec's modes of support have developed with time and gotten wiser, so to speak. Another view might be that each decade or mode of support is a product of its time, each with its own strengths and weaknesses. Either way, Sarec reflects upon its history from time to time and continues to portray itself as different to other donors, as exemplified by the 2000 annual report:

> Sida remains fairly unique in its systematic efforts of supporting research. Representatives of national, regional and international research organisations, invited to examine Sida policies and practices for research cooperation, agreed that conclusions drawn from Sida's experiences could contribute to shaping new commitments for research in development cooperation at large.
>
> (Sida-Sarec 2001, p. 3)

> Unlike traditional research funding, Sida chooses to strengthen research capacity at the institutional level, rather than limiting support to research projects or research training of individuals.
>
> (Sida-Sarec 2006b, p. 8)

Sarec upheld the importance of basing support on low-income country priorities and not on pre-defined research agendas. Certain thematic priorities are deemed relevant, but creating capacity is consistently lifted as the most central issue. They are critical of the dominance of externally proposed research cooperation in aid (cf. Sida-Sarec 2006b). Sarec is portrayed as an emancipatory actor in its critique of privatizing trends within research. In relation to the development of biotechnology, the 1998 annual report stated:

> More than 70% of the poor in developing countries live in rural, marginally productive areas largely untouched by modern technology. They depend for their livelihoods on indigenous genetic resources, developed and nurtured for hundreds of years. However, in recent decades, a shift has taken place concerning the ownership of the world's genetic inheritance. The private sector has been increasingly able to reap the benefits of agricultural research on plant improvement. Genetic resources are no longer considered the common heritage of humanity.
>
> (Sida-Sarec 1999, p. 3)

Similar criticism is delivered in relation to health research and the role of profit-making industries. Tropical disease is not a lucrative business, which is highly problematic given that so many people in the world suffer from these non-lucrative diseases (ibid.). Sarec maintained that support to CGIAR and WHO was one way to highlight these problems. Support to an African regional network on biotechnology issues was another. Despite the quite broad approach to capacity building that Sarec had, and the emphasis on local or national priorities, the annual reports sometimes framed the results of the support in a much more "globally oriented" manner. In the annual report from 2005, countries that had received Sarec support were said to have gained increased ability to:

- Exploit natural resources to further the country's economy
- Develop society in a way that is consistent with the principles of sustainable development
- Choose technologies that attract foreign direct investments
- Negotiate on the international arena

(Sida-Sarec 2006b, p. 8)

The increased abilities above can be seen as quite a strong expression of the universalistic discourse given that they are all oriented towards ideas and issues that are thought to ring true for all countries. It is assumed that foreign direct investments are the goal when choosing technologies, for example. Exploiting natural resources for economic growth could potentially be considered contradictory in relation to the ability that follows underneath – to develop society sustainably. In relation to the marriage of discourses this decade, however, it is not surprising. The principle of sustainable development is an expression of both

the universalist and the localist discourse, encompassing both economic growth and broader measurements of development.

Sarec within Sida: embracing change while resolutely defending boundaries between science and politics

The "special case of research" (*forskningens särart*) is a recurring theme in both the documents and the interviews concerning this decade. The differences between research aid and other aid (Sarec and Sida) had been an issue since the start of Sarec, but it becomes extra pronounced during the 1990s and 2000s, after the fusion.

Sarec remained much the same in its organizational form, and research retained a separate budget, though part of the funds were managed at other parts of Sida (parts of the thematic support, for example). Sarec's staff remained in one place up until 2008. The merger with Sida is described in the annual reports and methods documents as having had positive effects, but there are comments marking the difference between aid to research and other aid:

> The new opportunities for coordination within Sida have many promising features. However, the balance is fine between supporting research as a long-term investment and supporting research of more immediately applicable use. Research cooperation should not be transformed into a short-term supportive instrument at the expense of building a national basis for research in partner countries. Such immediate research needs should continue to be met within various sector contributions in the future.
>
> (Sida-Sarec 1998/2000a, p. 34)

The former directors interviewed were all critical to the fusion. Some of them felt more strongly than others, but it was clear that they thought that Sarec would have been able to do a better job if it had remained a free-standing agency. One idea was that the credibility of the agency in the eyes of Swedish universities as well as universities in low-income countries was greater when Sarec was independent. The long-term and scientific goals did not have to compete in with Sida's shorter and more political commitments. The directors uphold the boundary between politics and science in this respect. An example of this is when Olsson discusses a clash of priorities between Sida and Sarec concerning investments in the area of health sciences in Tanzania:

> Another example is Tanzania, where a lot of good research, staff development and other things were taking place. They had made some interesting discoveries within their HIV-research – research which was of relatively significant size at their medical faculty. A colleague at Sida said that since they had pulled out of supporting the health sector in Tanzania, why should Sarec continue to support health research? That view considers Sarec's support like

> a re-enforcing appendage to aid, while my view is that we are supporting the development of a research university in Tanzania … and you cannot just switch areas of support like that after two years.
>
> (Interview Olsson 2009)

Olsson maintained that they had to fight to keep Sarec's separate budget intact during her time as director. Her impression was that within Sida at large, the long-term role of research was less well understood and the Sarec staff felt that only immediate needs would be given priority if research funds were not protected. This is illustrative of the continuous tension between research as a special kind of aid versus research as a part of other aid. Research aid was associated with scientific values first and foremost, and long-term commitment was juxtaposed to Sida's general aid, portrayed as more politically determined and short-term. Though both types of aid worked with the method capacity building, for example, there were different time horizons and ways of working. Kjellqvist (2013) claims that this division is based on the same arguments as when the parliament was to decide about Sarec's instatement in 1975 (concerning the independent existence of Sarec).

Evaluated at 30 years

Six evaluations were conducted of Sarec's work and published in 2006 focusing on bilateral cooperation, international and thematic programs, Swedish development research and Sarec's internal organization. Sida also published a synthesis report summarizing the findings of all of the reports (Eduards 2006). The studies focused on goal fulfillment, efficiency and relevance of Sarec's policy and activities. There were both positive and critical conclusions, all of which also reflect certain views of the role of research in development. Some of the conclusions are summarized below:

Positive aspects

- The long-term form of support.
- Sida-Sarec is one of the few donors who support basic sciences, which is necessary in order to be able to conduct applied research.
- The fact that it is demand-driven. Transferring of responsibilities to the LIC is positive, adapted to their administration etc.
- The systemic approach to capacity building.
- Interdisciplinary research is being stimulated, something which is thought to increase relevance and applicability.
- It is a positive trend that LIC universities can look for suitable research and training partners in the region when it is a better option.
- The staff at Sarec, committed and flexible. Joint learning approach.
- The links to national policies and Swedish development objectives.
- Sida has the possibility to be "lead agency" the area of research. Research should be a high-profile area in Swedish aid.

Critique and other recommendations for improvements

- Overall objective with aid not easily combined with goals of research. Different cultures. The merger 1995 brought together organizations, not programs.
- More university–industry/other society stakeholder cooperation would be positive. More "real-life activity". More priority to projects that directly or indirectly improve the conditions of the poor and promote equitable economic growth
- The connection between research and higher education could be stronger
- Links to other Sida programs, embassies and other donors are weak. Greater synergies could be achieved. Research as an area of aid crucial to sustainable development should be emphasized.
- Sustainability of various projects should be included in the planning phase so that universities more quickly start applying for other types of funding than that of Sarec.
- When local project selection processes are weak – Sarec and Northern reviewers dominate the approval processes.
- The fact that research aid has goals tied to both research and aid makes it more difficult to follow up, not least quantitatively. A clear, relevant and useful monitoring and evaluation framework is needed.
- There is an implicit principle that cooperation between universities should preferably take place with Swedish universities – something that interferes with the demand-drivenness of the program.
- The long-term commitment is essential because research capacity is complex and takes time. However, it can also lead to projects that are forever donor-dependent.
- The PGD has not had much effect on Swedish research funding. Sida has gotten involuntary monopoly on Swedish development-related research. Funding of such research should be increased, but through cooperation with other research councils.

Several of the evaluations stated as part of their main recommendations that research aid could or should have more short-term effects and be more closely tied to other aid, while others support the distinction between research aid and other aid:

> There is the need to begin focusing on the broader question of "systems of innovation" at the national level, which take into account the use of research results and complementary inputs.
>
> (Rath et al. 2006, p. 50)

> There is a need to maintain the distinctiveness of Sida/SAREC's domain of work, with a clear distinction from regular Sida programs (as a Research Committee member put it, "SAREC is a part of Sida, but also apart from

> Sida"). In general, support for research and higher education should not be confused with many wide-ranging development cooperation efforts because it has longer time horizons, involves different stakeholders, and requires different mindsets, experience, and expertise.
>
> (Rath et al, 2006, p. 9)

In Sida's response to the evaluations, management agreed that the results of support to research should be applied in poverty reduction efforts, but they also uphold the need to see research aid in two timeframes, one short-term and one long-term. Otherwise, the available research capacity risks being absorbed by consulting tasks and other investigations (Sida-Sarec 2006a, p. 6). Regarding innovation systems as a tool to increase applicability, Sida stated that they had started cooperation with the Swedish Innovation Agency (VINNOVA) in order to promote the use of innovation systems in low-income countries. Sarec was portrayed as a successful international agency, its positive impacts and uniqueness underscored by several evaluators. In their response, Sida agreed that research should become a high-profile area and further ideas about how to achieve this would be presented in the budget proposition for 2008.

In summary, the 2006 evaluations had an array of suggestions for improvements, but in general they were all supportive of Sarec continuing its operations. Sida expressed support for most of the conclusions, with some modifications.

The disbanding of Sarec

In 2008, the politics governing Swedish aid were reformed, resulting, among other things, in far fewer collaborating countries and revised foreign aid goals. Some key words used by foreign aid minister Gunilla Carlsson in the information about changes to come within Swedish aid were efficiency and comparative advantage ("Sweden cannot do everything everywhere", Carlsson 2007). Like the fusion of Sida, Sarec, BITS and SwedeCorp in 1995, this reorganization was preceded by a change in government.

Sida was reorganized completely in 2008, and Sarec along with it. According to former director Kjellqvist (2008–2010), among others, the evaluations of Sarec had little to do with the disbanding of Sarec since the recommendations overall were supportive of continued activities by Sarec:

> The reorganization did not in any way consider what research cooperation was, the purpose was solely to steer everything in the same way, in a streamlined organization. … Research cooperation is not the only area that is different, everything is. If you try to mold a diverse set of operations like foreign aid into one form, it will fail.
>
> (Interview Kjellqvist 2010)

Former director Carlman's view was that research aid (in the form it was organized under Sarec) was the victim of a series of reorganizations:

> Nobody was really ever out to *get* Sarec, research just became some sort of innocent bystander … it started with the budget being divided, and then the organization was divided. Then came the reduction where several subject specialists were let go. … So the sum of it all is that research aid today is significantly reduced in its capacity, and this is very unfortunate since it has never been the subject of a specific decision, it is the result of organizational changes.
>
> (Interview Carlman 2013)

One effect of splitting parts of the research budget, according to Carlman, was that Sarec could no longer as easily coordinate the different levels of support (international, regional and bilateral). This weakening of control, he maintained, was later exacerbated by the movement of staff to other parts of Sida. These types of changes did not just affect research (Carlman 2013).

Olsson did not say much about the reasons for the disbanding since it was a relatively recent development at the time when I interviewed her (2009), but she talked about the same step-by-step reduction of control caused by different organizational logics that Carlman mentioned. She also raised the increased focus on producing short-term results as issues that reduced the strength of Sarec (Interview Olsson 2009). Olsson maintained that it was a bad idea to reduce the capacity within research aid, not only because of the amount of good work that has been enabled in low-income countries, but for Sweden's image:

> Research aid gives Sweden a good name. Sweden as a Nobel Prize country, Sweden as a knowledge economy … it is hard to explain to the surrounding world why we should reduce support for research. I am biased, but I think it is a bad idea to remove the Sarec name. It is well-known and has a good reputation. Of course there are things that could be changed but it is fairly established and respected activity.
>
> (ibid.)

Sweden's good name as a scientifically advanced country was also reflected and upheld through its research aid and reducing aid to research could potentially put a dent in this sociotechnical imaginary.

Concluding discussion

This decade, the rhetoric surrounding local priorities was intensified at the same time as global issues were more frequently discussed. The dominating sociotechnical imaginary was a future in which knowledge societies enable locally relevant sustainable development. Economic growth and poverty reduction are made possible through innovations based on both international and national research. The role of research aid in this was to contribute to capacity-building within these universities and assisting in creating connections with surrounding society actors. Research aid also assisted in the development of

relevant knowledge, networks and capacity through support of international and regional research organizations.

Part of the reason why national systems of innovation gained influence was a rejection of neoclassical economics and its conceptualization of the role of technology in development. Innovation systems entail a dynamic view, underlining things like the need for the cooperation between many different actors, the use of different kinds of knowledge, and the acknowledgement of context specificity. Perhaps it constitutes an attractive combination because it would seem to fit anywhere in its adaptability. One might pose the question, however, why the innovation system model should be considered any different than other grand theories of development – why should it be promoted in all low-income countries? At the same time, if it is perceived to work well by those involved, why not? The question of whether or not it is appropriate needs to be answered by those affected by it.

In contrast, the directors did not talk much about innovation or economic growth; they underlined the importance of research capacity as crucial for independent problem solving and higher quality in university education first and foremost. Results-oriented development research was considered important but secondary; the relationship to poverty reduction and economic growth was regarded as being necessarily indirect and long-term. Efforts to make the effects more short-term risked being at the expense of building long-term research capacity. The directors, too, share the fundamental belief in modern science – but would appear to express the localist discourse somewhat more strongly than the universalist one. I say this because they consistently attach value to supporting all kinds of sciences – a broad approach to building capacity is seen as more important than producing research results within specific predetermined areas.

The boundary organization's context within a larger organization placed new demands on Sarec, adding new routines and structures. It is clear from both the documents and interviews that there had always been a kind of wall between Sarec and Sida, between research aid and other aid. Did the wall between research and other aid contribute to the disbanding of Sarec? This would entail that Sarec was unable to fulfill its role as boundary organization in relation to the political principals. Another interpretation is that with the strong entrance of innovation systems thinking in aid, scientific knowledge became increasingly conceptualized as one of several important knowledges. This would in effect remove some of the "specialness" of research aid, and according to this logic, increased mainstreaming into other aid would make sense. It is also possible that there was a lack of political cohesion between the principals, making the task of the boundary organization very difficult.

References

Alänge, S., & Scheinberg, S. (2005). *Innovation systems in Latin America: examples from Honduras, Nicaragua and Bolivia*. Sida.

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Bhagavan, M.R. (1992). *The SAREC model: institutional cooperation and the strengthening of national research capacity in developing countries*. Sarec.

Boeren, A., Alberts, T., Alveteg, T., Thulstrup, E.W., & Trojer, L. (2006). *Sida/SAREC Bilateral Research Cooperation: Lessons Learned*. Sida Evaluation 06/17. Sida.

Carlsson, G. (2007). *The new development cooperation* (ppt). Prime Minister's Office and Ministry of Foreign Affairs.

Craig, D., & Porter, D. (2003). Poverty reduction strategy papers: a new convergence. *World Development*, 31(1), pp. 53–69.

Dahl, G. (2001). *Responsibility and partnership in Swedish aid discourse*. Discussion paper 9. The Nordic Africa Institute.

Dahlman, C., &Vishwanath, T.E. (1999). *World development report 98/99: knowledge for development*. The World Bank.

Eduards, K. (2006). *Review of Sida's research cooperation: synthesis report*. Sida.

Eklund, M. (2007). *Adoption of the innovation system concept in Sweden*. Uppsala Studies in Economic History, 81.

Globkom (2002). *En ny svensk politik för global utveckling*. SOU 2001:9. Kommittén om Sveriges politik för global utveckling

Gov (2007). *Sveriges politik för global utveckling. Skrivelse 2007/08:89*. The Swedish Government.

Gupta, J. (2010). A history of international climate change policy. *WIREs Climate Change*, 1(5) pp. 636–653. doi.org/10.1002/wcc.67

Hydén, G. (2007). *Challenging the mainstream in research and policy*. In Melber, H. (ed.), *On Africa: scholars and African studies*. The Nordic Africa Institute Discussion Paper 35.

Johansson de Château, L., & Billfalk, S. (2007). *Building research partnerships – an evaluation of the Swedish research links programme*. Sida.

King, K. (2004). *Development knowledge and the global policy agenda: whose knowledge? Whose policy?* Occasional paper. UNRISD.

Kjellqvist, T. (2013). *Biståndspolitikens motsägelser om kunskap och tekniköverföring–från konkret praktik till abstrakt policy*. Doctoral thesis, Blekinge Institute of Technology.

Mamdani, M. (2007). *Scholars in the market place: the dilemmas of neoliberal reform at Makerere University 1989–2005*. Council for the Development of Social Science Research in Africa (CODESRIA).

Melander, F. (2006). *Lokal forskningspolitik. Institutionell dynamik och organisatorisk omvandling vid Lunds universitet 1980–2005*. Lund University.

Nilsson, D., & Sörlin, S. (2017) *Research aid revisited – a historically grounded analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA). Sweden.

Odén, B. (2006). *Biståndets idéhistoria: från Marshallhjälp till millenniemål*. Lund, Studentlitteratur.

Olsson, B. (1992). *The ownership and cultivation of knowledge: the rationale for Swedish support to universities in developing countries*. Sarec.

Overton, J., & Murray. W.E. (2021) *Aid and development*. Routledge. doi.org/10.4324/9780367814755

Prop. (2000). *Regeringens proposition 2000/01:3 Forskning och förnyelse*.

Prop. (2002). *Regeringens proposition 2002/03:122. Gemensamt ansvar: Sveriges politik för global utveckling*. The Swedish Ministry for Foreign Affairs (MFA).

Prop. (2004). *Regeringens proposition 2004/05:80 Forskning för ett bättre liv*.

Prop. (2008). *Regeringens proposition 2008/09:50 Ett lyft för forskning och innovation*.

Rath, A.G. et al. (2006). *SAREC support to international and regional thematic research programs 2000–2005*. Main report.
Schumpeter, J. (1934). *The theory of economic development*. Harvard University Press.
Schumpeter, J. (1942). *Capitalism, socialism and democracy*. George Allen & Unwin.
Sida (1999). *A sea of opportunities: Sida-Sarec annual report 1998*.
Sida (2000). *Sida's policy for capacity development a strategic question in development cooperation*.
Sida (2005). *Sida's manual for capacity development*. https://cdn.sida.se/publications/files/sida4656en-manual-for-capacity-development.pdf [accessed September 2022].
Sida (2006). *Time for rethinking: capacity development in a changing landscape of development cooperation*. https://cdn.sida.se/publications/files/sida30709en-time-for-rethinking---capacity-development-in-a-changing-landscape-of-development-cooperation.pdf [accessed September 2022].
Sida (2006a). Årsredovisning.
Sida (2006b). *Biotechnology and the future of Africa: a presentation of the BIO-EARN Programme*.
Sida (2007). Årsredovisning.
Sida (2008). Resultatbilaga till Sidas årsredovisning 2008.
Sida-Sarec (1998/2000a). *Research cooperation I: an outline of policy, programmes and practice*. Sida.
Sida-Sarec (1998/2000b). *Research cooperation II: trends in development and research*. Sida.
Sida-Sarec (1999). *A sea of opportunities: research cooperation 1998*.
Sida-Sarec (2000). *Science for development – searching for keys to the future: research cooperation 1999*.
Sida-Sarec (2001). *Science for development – searching for keys to the future: research cooperation 2000*.
Sida-Sarec (2002). *Towards freedom from poverty: research cooperation 2001*. Sida.
Sida (2003). *Environmental research challenges in developing countries – some reflections: future environmental research*. Environment Policy Division and Sarec. Sida.
Sida-Sarec (2004). *Research cooperation 2003: forging links*. Sida.
Sida-Sarec (2005). *Research cooperation 2004: research makes sense*. Sida.
Sida-Sarec (2006a). *Letter to the Swedish Ministry of Foreign Affairs: summary and comments regarding the evaluations published in 2006*. Sida.
Sida-Sarec (2006b). *Yearbook 2005: research capacity: towards the Millennium Goals*. Sida.
Thörn, Å., & Svanström, L. (1999). *Bistånd till forskarutbildning i Nicaragua: Inga snabba resultat–tålamod och långsiktighet nyckelord*. *Läkartidningen*, 96(34).
Wade, R. (2013). The art of power maintenance: how Western states keep the lead in global organizations. *Challenge*, 56(1), pp. 5–39.
World Bank (2000). *Higher education in developing countries –perils and promise*. The Taskforce on Higher Education and Society.

8 2009–2020

Tackling global challenges through transformative innovation?

> Research is an important component of development in what we call "the knowledge society." In this, there is an interplay between research and society in general, so called innovation systems. The strength and quality in this interplay is dependent on how research is organized and financed. Insufficient resource allocation and lack of guidance for research in many developing countries can lead to an inhibition of this important interplay.
>
> (MFA 2009, p. 2)

> Research cooperation is to strive to ensure that intellectual freedom and the freedom to acquire and disseminate knowledge are respected. Acceptance of risk must always be seen as a part of the conditions of research and research cooperation, not least because far from all research generates immediately applicable results.
>
> (MFA 2014, p. 4)

> High-income countries still dominate the world's collected knowledge production. Priorities of low-income countries, and the perspectives of people living in poverty, are not sufficiently considered. The Swedish view is that development cannot be externally created or imposed. Local ownership is emphasized in all our research cooperation and research priorities are set by our partners. We are guided by principles of equity, gender equality, environmental sustainability, academic freedom, transparency and anti-corruption.
>
> (Sida 2020a, p. 2)

This chapter starts in the aftermath of the 2008 reorganization and analyzes the policy development between 2009 and 2020. The universalist and localist discourses continue to be intertwined in a tense union. There is continued emphasis on sustainability and global challenges come to the fore. The focus on innovation systems that took hold in Swedish research aid policy in the early 2000s remains and becomes a central building block of the dominant sociotechnical imaginary. As the decade progresses, contextually specific, social, transformative and inclusive innovation is underlined as key for solving global as well as national and local challenges. In this view, problem solving needs to

DOI: 10.4324/9781003033271-8

be pursued with broad participation that reaches beyond the goal of economic growth that was more dominant previously (cf. Sida 2019a).

The analytical focus in the chapter is on how the relationship between research and development is portrayed throughout this decade. I highlight changes in how the task is defined, how the organizational context evolved and discuss the development of modes of support. The main empirical materials used are policy and methods documents, evaluations and annual reports. Additional empirical materials are interviews with three former directors of the research unit at Sida as well as two representatives from the MFA and the Ministry for Higher Education and Research.

The wider social practice: a snapshot

Multilateral collaboration resulted in a number of significant global agreements of relevance during this decade, not least the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development in 2015. The Sendai Framework for Disaster Risk Reduction and the Addis Ababa Action Agenda on Financing for Development underscored the need for collaborative action on issues of global concern. The emphasis on climate change, environmental degradation, and biodiversity was further ramped up. The SDGs have been described as enabling transformative and systemic solutions to development problems and reflecting a less binary view of development (cf. Horner & Hulme 2017). Research also suggests, however, that there are implementation challenges – breaking siloed approaches is difficult (Allen 2018; Biermann et al. 2022).

While systemic and interconnected challenges are underscored in global cooperation, de-globalizing trends have gained traction and populism has been on the rise in many countries. Although it is difficult to adequately capture the current meaning of development (cf. Rist 2006), there is diversity when it comes to development theory this decade. Ideas about state-driven development are combined with ideas about capital accumulation, and trade liberalism coexists with protectionist and nationalistic policies (Overton & Murray 2021; cf. Nederveen Pieterse 2017). Aid agendas towards the end of this decade became increasingly characterized by the national interests of donors, the aid actor landscape continued diversifying and donor coordination was highly fragmented (Gulrajani 2017; Jakupec & Kelly 2019; Carmody 2019; Swiss 2021). According to Gulrajani (2022), the development effectiveness agenda is facing a crisis due to the increased pluralism of development narratives.

The role of science, technology and innovation – and their associated capacities – continues to be underscored in multilateral policy contexts, yet resources for higher education and research remain unequally distributed globally, as shown in the introductory chapter. Scientific capacities have increased around the globe, and countries like China, Brazil and South Africa are among those that have significantly increased their research outputs during the past decade. Still, many low-income countries continue to have limited resources for research and remain highly

dependent on foreign aid. The colonial heritage of Western knowledge production has been increasingly debated and analyzed (cf. Kraemer-Mbula et al. 2020; Anderson 2020; Hammond 2021) and dialogues between postcolonial and development studies became more mutually constructive (McEwan 2018). Calls for transformative development highlight the importance of moving beyond established categories and definitions to imagine new framings and more just pathways for change that is more inclusive and locally anchored (Nightingale et al. 2019).

Turning to Sweden, the conservative coalition government elected in Sweden 2006 continued in power until 2014, when a social democrat led coalition took over. Fewer countries received Swedish aid and Sweden's "like-mindeds" changed yet again (cf. Wohlgemuth & Odén 2019). Aid continued to be a contentious political area and public support for foreign aid in Sweden waned towards the end of the decade (Ekengren & Oscarsson 2021). Debate and evaluation about the organization and direction of Swedish research aid continued. How should aid be governed and steered? How should the results of aid be measured and reported? What is the role of expertise in the aid administration? How should Sweden best support researchers in low-income countries (cf. Odén & Wohlgemuth 2013; Carlsson 2010; Källenius 2010; Paulsen 2012; Petri Gornitzka 2012; Nilsson 2016, 2017; Román 2016; Hydén 2020; Gerremo 2020; Björkman et al. 2021)?

Up until the 1980s, Sweden was generally perceived as pursuing their own development agenda, although UN strategies have always been reflected in Sweden's priorities. Sweden provided more ODA than the DAC average and was characterized by for example a value-driven and poverty-focused approach, a focus on low-income countries, recipient ownership and strong support for multilateralism (Elgström & Delputte 2015). By the 1990s, Sweden seems to have become more similar to mainstream OECD donors (cf. Brodin 2000; Danielsson & Wohlgemuth 2005). According to Odén and Wohlgemuth (2013), Swedish aid became more donor-driven (cf. Kjellqvist 2013):

> The basic element of trust between two sovereign states seems to have weakened as indicated by increasing demand for control measures. … The more skeptical attitude towards partnership with governments has also meant that aid is channeled increasingly through non-governmental actors, in particular the private business sector in the partner countries. Thus, Swedish development cooperation seems to have become more supply-driven and less demand-driven; the influence of the receiving partner has been reduced while Swedish views and ideas of what is most suitable for the receiver are on the increase.
>
> (Odén & Wohlgemuth 2013, p. 60)

Swedish commitment to partner country ownership has eroded in the recent decade, they argue (Wohlgemuth & Odén 2019). Although cooperation with so-called fragile states and post-conflict countries has increased, direct bilateral collaboration has generally been reduced, and support via intermediaries (private

sector, multilaterals and civil society) has increased. Elgström & Delputte (2015) argue that while Nordic exceptionalism has partly eroded and Nordic donors have become more similar to other EU countries (as well as different to one another), what has happened is rather a Nordification of European policies and a "like-mindisation" (cf. Swiss 2021).

Three research bills were published in Sweden during this period: 2012, 2016 and 2020. The bills increasingly underscore global challenges and move away from associating development research with aid only. The bills from 2016 and 2020 do not specifically mention development research or collaboration with LIC researchers at all, but the 2020 bill states "As part of an increased internationalization of Swedish Universities, Swedish research should contribute to addressing challenges in low-income countries" (Swedish Government 2020, p. 65). The bill also states that "collaboration with low- and lower middle-income countries is important because many global challenges concern the situation in these countries" (ibid., p. 178). These formulations might indicate the beginning of a move from solidarity as motive for collaboration towards mutual interest. The Swedish PGD was revived in 2015 and an action plan for Agenda 2030 was set in 2018. In all, the policy landscape – in both research and aid politics – becomes characterized by focus on global challenges, challenge-driven research and responsible research and innovation (cf. Nilsson & Sörlin 2017).

Organizational context: integration and disintegration?

A few turbulent years at Sida followed after 2008 and research aid was reorganized again (Bjarninger 2013; Fellesson & Hårsmar 2013) and what was earlier called Sarec became a research unit (FORSK) with about half the staff in total compared to 2008. Research advisors were also more spread out at Sida, some being placed with FORSK, and others at other departments as well as at Swedish embassies in partner countries. According to an evaluation by Fellesson and Hårsmar (2013), the reason behind these changes was to integrate research more into other aid operations, creating new synergies (something that was raised in the 2006 evaluations, as discussed in the previous chapter). This effect seems to have been achieved, but since it entailed that the remaining research advisors did not work together to the same extent, it also had the effect of weakening links between the different modes of research support (global, regional, bilateral and Swedish development research).

The budget for research aid fluctuated but remained on average around one billion crowns. In practice, this has entailed a relative reduction of the research aid budget as a total of Sida's budget (from around 6 to 4%) and the number of staff working with research was roughly halved compared to the previous decade (Sida 2017; Nilsson & Sörlin 2017). This reduction occurred during a time where other OECD countries and funders also reduced their support to development research in international organizations as well as bilateral capacity building.

Tomas Kjellqvist, who was director at the research secretariat between 2008 and 2010, did not consider the lack of integration at Sida a problem: "it is irrelevant from the countries' perspective. Our clients are not Sida staff, our clients are all our collaborating partners in the countries and the global research community" (Interview Kjellqvist 2010). In other words, Kjellqvist argued that the integration of Sarec into Sida did not necessarily add value to the operations of research aid. This could be seen as an example of boundary work being done to conserve the "special place" of research aid. The norms and politics of science were valued higher, and a struggle to defend budgets and modes of work took place.

One of the positive effects of the reorganization in 2008, according to Kjellqvist, was precisely that the role of research came onto a broader set of agendas. At the same time, he maintained that the budget was also spread out and the central research secretariat became weaker as the overview of funding and quality assurance became more difficult (Interview Kjellqvist 2010). AnnaMaria Oltorp, who was director of FORSK between 2014 and 2021, also saw both pros and cons to the dispersion of research aid staff across the organization. Research became more integrated in some ways, but it also entailed some challenges to methodological consistency (Interview Oltorp 2021). Compared to similar agencies in other countries, such as IDRC in Canada, FORSK had considerably less staff.

On the relationship between research, development and aid

Alongside IDRC in Canada and Norad in Norway, Sida was one of few donors prioritizing research capacity building with a broad institutional focus in the beginning of this decade. Although Agenda 2030 and the Addis Ababa Action Agenda (2015) underscore the importance of science, technology, innovation and capacity building, support to development research by researchers in donor countries appears to have generally become prioritized over support to international collaboration and capacity building collaboration with partner countries during this decade. Ear-marked project support became more common than "untied" or core support to research organizations, entailing more donor-driven research agendas (Sida 2011). Private foundations and research councils internationally increasingly supported development research but not coupled specifically to capacity-oriented aid collaboration. Towards the end of the decade, Sida's annual reports refer to additional trends that pose challenges to research collaboration, such as increased political turbulence and the entry of *fact resistance* and the associated questioning of academic freedom and scientific knowledge, "despite a modern society's absolute dependence on continuous knowledge development and expertise" (Sida 2018, p. 94). These trends risk weakening science and preventing the achievement of the SDGs, Sida argued; "Strengthened capacity to do research and analyze is an important antidote that benefits democratic development" (Sida 2020b, p. 61; cf. Sida 2019a). Sida stated that it is in this contradictory context that research aid has to operate.

The purpose and modus operandi of Swedish research aid are laid out in two steering documents covering this period, the first one stretching from 2010 to 2014, and the second one from 2015 to 2021. The task and major modes of work remain similar to previous decades. A central point of departure is that there is a gap between demand and supply of research-based knowledge on country-specific problems and needs in developing countries. This gap, according to the policy, can only partly be filled by internationally produced knowledge (MFA 2009). Developing countries need their own resources for producing high quality research in order to produce country-specific knowledge as well as so-called receiving – or absorptive – capacity to be able to collect, adapt and apply internationally developed knowledge (and technology) (MFA 2009, 2014). There is a multitude of expectations placed on universities, and the reasons given for supporting research are similar to previous decades, although absorptive capacities and research uptake are underscored slightly more. Research capacity is about international publications and patents, but it is also considered central for improving the quality of higher education, enabling good bases for decision making and developing fora for critical analysis (MFA 2009).

Research institutions are situated as part of the knowledge society in relation to systems of innovation. Freedom of expression is viewed as crucial for being able to autonomously communicate research results, which in turn is considered necessary for societal development to be based on pluralism, diversity and good governance (MFA 2009). Access to research-based knowledge is described as an important precondition for poverty reduction and sustainable development (MFA 2009, 2014). Furthermore, improved research capacity is described as enabling international collaboration, which in turn is conceived as improving research quality (MFA 2009).

The aid actor's role continues to be framed as catalytic and research is considered a long-term commitment (Sida 2012, 2013a). There is a sense, similar to the 1980s, that support for research has to be defended: "The long-term nature of research often has to stand back in the face of more acute needs. It is sometimes impossible to not prioritize the immediate crises, but without investments in capacity and knowledge, the crises risk becoming permanent" (Sida 2018, p. 139). Like before, the policy discourse underlines that research should not be considered a luxury. Research is, rather, portrayed as a basic precondition for long-term sustainable development.

Research capacity is portrayed in the steering documents as being dependent on cumulative development in different levels of the system – individual, institutional, regional and international. Capacity development in partner countries, the policy states, is being inhibited by weaknesses in governance structures, quality assurance and human resources. In addition, a lack of national science policy and budget for research constitutes major challenges. The 2010–2014 strategy states that there is also an insufficient international production of research-based knowledge on poverty-related development, and that high-income countries therefore need to prioritize development relevant research more as well (MFA 2009).

References to locally produced knowledge often clearly associate with being situated in partner countries, whereas knowledge produced in high-income countries and international organizations is often classified as international (although this knowledge, too, is locally produced). There are also many general statements about research in "developing countries" for simplification, although there are of course many differences between countries in this category.

The end goal envisioned for the research-related support that Sida provides is an increased (independent) capacity in partner countries and regional research actors to plan, conduct and use research in the fight against poverty, through innovation; "Research constitutes the foundation for understanding problems and being able to undertake necessary interventions" (Sida 2018, p. 137). This capacity concerns both partner countries and regional research actors. Sida envisions results such as increased autonomy for universities, national budgets for research, less brain drain and more women in PhD education (MFA 2009; Sida 2013a, 2018).

The ownership of the collaborating partner is considered central in Swedish research aid. Although the possibility of, for example, supporting the establishment of research councils still exists (cf. MFA 2014), discussions about capacity continue to emphasize strengthening what is already there rather than building new structures:

> A point of departure for Sida's support to research collaboration is that it should contribute to strengthening already existing organizations and institutions instead of creating new parallel structures. The initiative and ownership should lie entirely with the collaborating partner.
>
> (Sida 2013a, p. 139)

Although pursuing demand-led research aid continues to be central to the policy, there are also thematic areas that are considered universally valid to support. Priorities that are considered of particular relevance to poverty reduction and sustainable development in general – such as environment and climate, agriculture, energy, trade and health – are supported through regional and international research institutions and networks (MFA 2009, 2014). This illustrates the continued entanglement of the universalist and localist discourses with their associated and partly overlapping theories of change.

A growing focus on innovation

The innovation concept, as previous chapters have shown, has existed in Swedish research aid policy for many decades, but innovation theories became more central in the early 2000s. This trend was strengthened during this decade, as evidenced by more frequent references in all central policy documents as well as position papers and evaluations (Sida 2012; MFA 2009, 2014; Sida 2019b). Alongside the increased references to innovation, private actors are also more actively included, not least in conjunction with achieving the SDGs (Sida 2012, 2021a).

Research is portrayed as contributing to sustainable development – including poverty reduction – through innovation. Lives can be improved, for example, through water purification, cures for diseases, creating access to electricity or improving the nutritional content of crops (Sida 2022). Although these results are discussed in relation to innovation, the examples could be considered similar to those from the early decades. Furthermore, systems have also been in focus since the beginning – so in this sense the change is not necessarily about the problems in focus but rather how their interrelations and associated sets of solutions are conceptualized.

An evaluation of Sida's support to innovation systems in 2012 (covering the period of 1997–2011 and based on the cases of Bolivia, Uganda, Tanzania and Mozambique) concluded that efforts had been largely successful to date. A summary report of the evaluation stated:

> Relevant, cost-efficient and quality improving knowledge has been transferred thanks to the links between universities, authorities and organisations (business and civil society) that were formed within each initiative. During the process, trust among actors increased, as well as efficiency, jobs, incomes, and productivity of participating small firms.
>
> (Sida 2013b)

The discussions about innovation during the earlier part of the decade tend to underline economic factors as central. This particular evaluation also highlighted the role of knowledge other than scientific knowledge. Traditional knowledge is described as needing modern knowledge in order to contribute to economic growth, which in turn would lead to poverty reduction:

> Innovations in poor developing countries are most often "local innovations" that increase efficiency in production, reverse engineer products and translate available knowledge to local contexts. To increase growth rates in poor countries it is important to link traditional and indigenous knowledge and to integrate competencies and skills from traditional sectors with modern knowledge.
>
> (Rath et al. 2012, p. 20)

One could argue that this view implies that traditional knowledge alone is not as efficient if the goal is economic growth. It is illustrative of the tensions between development theories – what is the definition of progress, and how is this measured? The authors saw systems of innovation, Triple Helix and cluster initiatives as useful methods to tie research to poverty reduction and recommended that similar work be done in additional partner countries in research cooperation, as well as in other policy areas at Sida (Rath et al. 2012).

In 2013, Sida's definition of innovation was "the use of ideas, technologies or ways of implementing ideas/points/concepts that are new to a specific context" (Sida 2013b, p. 3). The concept of *inclusive innovation* was used early in the

decade, but the emphasis was generally strongly on the role of economic growth for poverty reduction. A position paper in 2015 defines innovation similarly but also discusses the theoretical underpinnings of innovation ideas and broadens the conceptualization of the knowledge systems within which Sida's support to research is situated, and the discussion about *inclusive* innovation is expanded.

Innovation at the end of the decade is defined as "the use of knowledge – ideas, technologies and processes – into procedures, products and services that bring added value and are new in a specific context" (Sida 2019b, p. 5). Knowledge is at the core and research institutions are described as "key players in the innovation system as providers of human capital [through educating a skilled workforce, authors addition] and scientifically validated knowledge through research" (Sida 2019b, p. 4). Innovation is considered central for making research *useful*, but both basic and applied research are valued, and not all research is seen as being able to be immediately useful (MFA 2009, 2014). The innovation process is as important, or more so, than the end result (Sida 2019b). There is less emphasis on economic growth.

The specific preconditions of each context are consistently raised at the same time as the conceptualization and principles of innovation systems are deemed universally valid, even though actors and goals can vary depending on how mature the research system in a partner country is. Sida states that some innovation challenges faced by researchers are the same across countries, but innovation systems in partner countries are described as generally weak and lacking many of the preconditions for making optimal use of knowledge (Sida 2015b). This is an assessment that remains later in the decade:

> Primarily, innovation systems in LLMICs are usually weak. The necessary structures are either not in place or do not have the capacity to drive innovation. A main key to innovation is efficient interaction. In LLMICs, like in many other contexts, there is often a lack of systematically organized interaction between research institutions and the stakeholders of the surrounding society (i.e. private and public sectors, civil society).
>
> (Sida 2019b, p. 4)

While this and similar depictions are characterized by deficit narratives, entailing a comparison to stronger innovation systems in high income country contexts (cf. ibid., p. 7), the particulars of each country are underscored: "The contribution of research to innovation can be a matter of finding ways to adapt and apply existing and new knowledge to circumstances and needs in low-income countries" (MFA 2014) Furthermore, Sida states that "there is no model which fits all. Interventions must be context-specific, be based on strong local ownership, and contribute to a sustainable innovation system" (Sida 2019b, p. 4). Collaboration, co-creation and locally driven solutions are seen as key, as is research communication with politicians, local communities and companies (Sida 2019a, 2019b). Other futures than those associated specifically with the paths of high-income countries are thereby also rendered possible.

The distinctions between "true" innovations and "leaps" versus incremental steps are discussed, and Sida positions its support as contributing to improved preconditions for innovation:

> the main purpose of Sida's Research Cooperation support to innovation is to promote the environment and conditions for innovation to take place. Many small steps may eventually lead to major change or a big leap which we can define as a "true" innovation, i.e. something that can contribute to transformation of societies, to address poverty, and to achieve social, economic and environmental sustainability.
>
> (Sida 2019b, p. 6)

Sida aligns itself with Vinnova's definition of social innovation where the addressing of social challenges is the primary focus, not economic growth and increased consumption:

> Social innovations aim at activating, promoting and exploiting the whole of society's innovation potential, and through new social approaches addressing the needs of society better than has been done so far. There may be new goods, services, methods, business models or practices that through new ways of thinking contribute to an inclusive society. Those affected by a problem are involved in the formulation and solution of it. The primary intention is social benefit, it is not just a (positive) side effect.
>
> (ibid.)

Oltorp (director of FORSK between 2014 and 2021) also highlights the social aspects of innovation:

> Many interpret when we write innovation as if it only refers to product innovation, whereas there is probably more support going into social innovation. Research communication becomes very important, and the interaction between users. It is also about trans-disciplinary research, including users already when identifying the research question.
>
> (Interview Oltorp 2021)

Sida's position is that transformative and inclusive innovation should be pursued, increasing the breadth and diversity of those contributing to innovation and ensuring the participation of – and benefit for – marginalized groups. A broad set of stakeholders should be included; users, solution owners, problem owners and enablers (Sida 2019b). The connection between development, human rights and knowledge was also raised in the 2010 policy and strategy, underscoring the importance of integrated analysis in research, from several perspectives, to ensure social, economic and political justice (MFA 2009). In all, the policy development during this decade, not least in the second half, can be seen as reflective of the larger shift in science policy focus to responsible research and innovation.

Evolving modes of support

The concentration of support is largely unchanged during the decade with roughly a third going to bilateral research collaboration, around 50–60% to regional and international research organizations and 10–15% to Swedish development research (Nilsson & Sörlin 2017). The support was concentrated on seven countries in the beginning of the decade: Bolivia, Burkina Faso, Ethiopia, Mozambique, Rwanda, Tanzania and Uganda. By the end of the decade, Cambodia had been added and Burkina Faso removed. The support modalities remain the same: research capacity building in developing countries and regions (bilateral support); research of relevance to developing countries (support to international and regional research organizations), and Swedish research of relevance to developing countries (Swedish development research). What is supported under each modality continues to vary, as in previous decades, but the logic largely remains the same. Regional research support is underlined more than previously, gender and climate received more emphasis and the support to Swedish development research has undergone changes (as will be discussed below). The steering documents state that links between the three modalities are to be pursued, but evaluations and reviews show that links between them weakened during this decade.

Bilateral research cooperation

Sida published guidelines for support to national research systems in 2018 outlining the principles and application processes of bilateral research collaboration. The guidelines state that nations depend on "capacities to create, adopt, adapt, and apply knowledge" (Sida 2018, p. 5) in order to be able to participate globally and achieve economic sustainability. Sida aligns itself with the commitments in the declaration from the first African Higher Education Summit on Revitalizing Higher Education for Africa's Future in Senegal 2015, which among other things underscored the importance of research, science, technology and innovation. Systems for knowledge production are seen as particular to each country, and Sida's role is described as supporting the "fundamentals of research capacity in a holistic manner" (ibid.) – fundamentals that are considered to be useful regardless of how the system develops in the future.

Alignment with existing institutional research policies is considered central – when they exist. If they do not exist, Sida can support the development of such policies (Sida 2018). Sida can, in their bilateral research collaboration, support research policies and strategies, research management and research capability. Support for capacity development can be provided to universities, ministries for research and research councils, as well as regional organizations. Strengthening competition-based financing was seen as contributing to improved scientific quality and considered "an important instrument in the building of a culture of funding allocation based on merits and not patron–client relations" (Sida 2011, p. 33). Collaboration with Swedish research councils and their international collaboration partner is encouraged.

Kjellqvist (director 2008–2010), maintained that Sarec's entry into Sida in 1995 made very clear that there was a conception that regional and international research support was about knowledge production, while bilateral collaboration was about capacity building. This was subsequently challenged and replaced by the notion that they overlap and all methods of work contribute to both capacity and knowledge production (Interview Kjellqvist 2010). Furthermore, Kjellqvist maintained that a great increase of PhDs was necessary at the universities in partner countries in order to support the enormous university expansion going on. Working with research schools was one option for upscaling PhD training, argued Kjellqvist.

Training of individual researchers, research supervisors and research coordinators remains central and differs depending on context. During this decade, the research unit started reducing sandwich programs in cases where a critical mass of researchers existed, replacing individual-oriented programs with support to local research schools and master's level education. The sandwich model is still a central modality, not least where supervisory capacities are lower. Where the supervisory capacities are higher, support to more locally organized PhD programs and courses is pursued. In a review following up Sida-supported PhD graduates, Fellesson notes:

> the main determinant of poverty in many low-income countries today is not a lack of natural resources or geographical marginality, but a lack of trained, specialised individuals who could generate context-specific knowledge and solutions to challenges in society and contribute to prosperous, sustainable development.
>
> (Fellesson 2017, p. 9)

Fellesson concluded that the most of the Sida-supported PhD graduates remained in academia, many of them gaining senior positions, and several are involved in international collaboration of some sort (less so within the social sciences, however). At the same time, mobility tended to be low and opportunities to continue doing research were low, administration or teaching took precedence. The steering documents acknowledge the issue of inequality in bilateral collaboration, as illustrated below:

> The relationship between Swedish researchers and researchers in developing countries are resource-wise unequal which in turn can result in an unequal influence when it comes to design, implementation and publication of research results. Support to research should be formed so that it counteracts superiority and subordination in the research relationship.
>
> (MFA 2009, p. 9)

Despite this ambition, Fellesson's review found that the PhD graduates often experienced a sense of subordination given that they possessed fewer resources in the form of time, funds and academic merits (Fellesson 2017). Based on these

findings, suggestions included increasing the support for PhD graduates in order to meet the existing demand as well as instating funding for post-doc positions in order to increase the pay-off for having achieved a PhD (ibid.). As the study by Mählck (2018) illustrates (discussed in Chapter 2), issues of inequality also exist within the sandwich programs.

An evaluation of Sida's model for bilateral research collaboration was published in 2020, based on bilateral collaboration with Bolivia, Rwanda, Tanzania and Vietnam.[1] The evaluation found that Sida's programs contributed to individual capacity building, improved research environments and saw an increase in academic publications. Impact when it came to institutional support appeared to be determined by existing institutional structures, and what worked best according to the evaluation's findings was support to financial management systems, quality assurance and smaller research grants. Support to ICT systems and libraries was also considered successful. The evaluators conclude, however, that the application of the improved capabilities faced challenges, with few post-PhD research results and limited systematic effects of the institutional capacity on policymaking and development despite the highly relevant research being conducted.

Similarly to Fellesson (2017), Tvedten et al. (2021) found that PhD graduates generally tended to be engaged in administration and teaching rather than research. Collaborations between Swedish universities and partner country universities were deemed productive but did not tend to translate into institutional partnership beyond aid funding. They suggested for example that Sida's bilateral collaborations needed a clearer theory of change; that context analyses should be used more; that more emphasis should be placed on research leadership, researchers and research networks as collectives; that research areas and themes should be limited; that monitoring and evaluation should be simplified and that larger, longer-term and multidisciplinary research projects should be funded (Tvedten et al. 2021).

FORSK management response found the evaluation "provocative and inspiring" (Sida 2021b, p. 1), agreeing partly with the recommendations, although they stated that many of them were in line with how Sida was already working or how work was evolving. They saw potential for action when it came to, for example, increasing support to research groups, post-docs and research leadership; strengthening the use of context analyses; simplifying monitoring and evaluation and potentially supporting a smaller number of research areas, in dialogue with partner universities.

Support to development relevant research internationally and regionally

In terms of support to international research organizations, Sida decided to concentrate their funding to fewer programs and work towards enabling the participation of researchers from the South in these programs, projects and management. Support was provided for example to the Latin American Council for Social Sciences (CLACSO), Council for the Development of Economic and

Social Science Research in Africa (CODESRIA), International Network for the Availability of Scientific Publications (INASP), the WHO, the International Centre of Insect Physiology and Ecology (ICIPE), the Organization for Social Science Research in Eastern and Southern Africa (OSSREA) and the Bioresources Innovations Network for Eastern Africa Development Programme (BioInnovate) (Sida 2011, 2015a).

Although the practical results (development relevance) of international research organizations located in the South were considered high quality, the scientific quality was not seen as matching that of results produced in the North (Sida 2011). Since scientific quality was upheld as most important, one solution to this problem was to create opportunities for Swedish researchers to collaborate with the research organizations in the South, creating bridges to international scientific journals and conferences. This is illustrative of a continued tension between scientific and political ideals and their related definitions of quality. High quality practical results, one could argue, are positive for development. On the other hand, if the funding is classified as research related, one could argue that it is reasonable that the operations are judged against internationally agreed upon scientific standards. In this, the aid actor and Swedish researchers constitute temporary facilitators of expertise that are considered necessary to achieve scientific quality.

Specific research areas are also prioritized, as in previous decades – for example health, social science, natural resources and the environment and technology (Sida 2013a) and later energy research and agriculture (Sida 2018). Support to research is given within both the research strategy and regional strategies: "Regional collaboration enables research on sensitive and sometimes dangerous issues that otherwise would not be possible on a national level" (Sida 2017, p. 24). The importance of social science and the humanities is lifted again, given its contribution to continuous debate and learning about how society works and how it could or should change (Sida 2018).

Swedish development research(ers): moving boundaries, changing identities?

In 2013, the research council function funding Swedish development research (U-forsk) was taken over by the Swedish Research Council (VR). Reasons for this were several, but one was that FORSK at Sida did not have enough resources to manage the program anymore, and another was that the new research strategy (covering 2010–2014) pointed out that support to development research was to follow the same guidelines and practice as other state-financed research (Swedish government 2012; Fellesson & Hårsmar 2013).

The evaluation concludes that the move of U-forsk to VR was perceived as positive by Sida staff, even though Sida's communication with the Swedish research community and links to other modes of support diminished because of it (Fellesson & Hårsmar (2013)). There were tensions in conjunction with this move due to different views of how to properly assess the issue of development relevance in relation to scientific quality. Previously, the assessment work was

shared among many research advisors, which also had the effect of enabling synergies with other parts of research aid operations and updating the advisors on the research fields (ibid.). Sida and VR were tasked to consult, engage in dialogue and seek synergies regarding the implementation of the research-related strategies (MFA 2014). Both steering documents of this decade underscored the issue of scientific quality, but also lifted the importance of development relevance, as exemplified by the quotes below:

> Quality as decisive factor. Scientific quality shall be judged based on international criteria and direct the support for research. Quality, development, and renewal are points of departure. This shall in turn be weighed against development related relevance criteria. Relevance criteria are always subordinate to scientific quality.
>
> (MFA 2009, p. 7)

> Scientific quality is to be a decisive criterion in all decisions on contributions within the framework of the strategy. Nonetheless, they are to be clearly guided by the criterion of relevance for development, in accordance with the objective of the expenditure area.
>
> (MFA 2014, p. 3)

This tension between high scientific quality and development relevance continues: boundaries are defended, reiterated and redrawn.

Similar concerns were raised in reviews during this decade (Thulstrup 2010; Nilsson & Sörlin 2017; Fellesson 2017). The engagement and interest in development-related research and bilateral cooperation at Swedish universities remained strong, but the preconditions for engagement vary over time. Kjellqvist (during his period as director) was critical of the fact that Sida (referring to their past role as funder of Swedish development research) was tasked to collaborate with research agencies but these research agencies were not in turn as clearly incentivized to collaborate with Sida. A broader approach to internationalization of higher education and research in Sweden was needed, he argued (Interview Kjellqvist 2010). A review by Thulstrup in 2010 pointed out that demands and conditions were changing in both the South and the North. Universities in the South faced quickly growing demand for higher education due not least to population growth, increased access to secondary education and urbanization. The number of researchers was not increasing at the same rate, and funding options were lagging behind, generating problems with maintaining quality and good working conditions. Swedish universities, he argued, were going through financial reforms that could disincentivize collaborations with low-income country universities. Changes included for example new tuition fee systems for non-EU students and new regimes for measuring research output which valued valuing publications and citations before capacity building collaboration (Thulstrup 2010). While he found that the PGD (the 2008 version) was well received by Swedish universities, it was not causing great excitement since it did not latch onto the incentive

structures of higher education and research. The role of Swedish universities needed to be valued at Sida, and North–South research cooperation had to be valued at Swedish universities, he argued. Longer term institutional commitments with universities (in addition to researchers) and less bureaucracy might create better incentives, suggested Thulstrup (2010). Previous research also suggests that increased focus on more narrowly defined academic output tends to crowd out time for capacity building (Carbonnier & Kontinen 2014).

A working paper by the Expert Group for Aid Studies (EBA) in 2020 showed that the Swedish development research community is diverse, fragmented and in need of improved funding opportunities as well as more collaboration (Strand et al. 2020). They found that while some Swedish universities have a critical mass of development research, teaching and capacity-building collaboration, most do not. The authors argued that development research and development-related research tends to cross disciplinary boundaries, which can make the securing of funds challenging. Furthermore, they saw a need to create additional opportunities for networking, both between researchers and between researchers and policymakers.

A few years earlier, Fellesson and Hårsmar (2013) argued in a similar vein (in a review of Sida's program for development research 2006–2012), suggesting that increased funding to U-forsk was warranted and that the program was considered important for the internationalization of Swedish research. At the same time, they argued, "development studies" was partly becoming a vaguer concept given the transboundary nature of development challenges and less pronounced differences between low-, middle, and high-income countries. While U-forsk's unique position was deemed important for Swedish development research, it also entailed that other research councils did not enter that niche as much. The review by Nilsson and Sörlin (2017) suggested that research aid should be more closely intertwined with research policy at large given that the complex challenges countries now face are shared to a greater extent. For this to happen, some reconfiguring would be necessary:

> the distance between research as the instrument and development as the goal is too distant and no one has in earnest articulated any policy ideas to fill the gap over the years. The spokespersons, and experts, of research policy almost never talk about research for aid. The development aid experts almost never talk about research policy. As the funding streams for these two strands of policy and expertise remain separated, each of the two enjoys a certain level of financial security and thus independence rather than interdependence.
>
> (Nilsson & Sörlin 2017, p. 87)

They argue that a transformative frame is necessary, where research and knowledge aid tackles local and global challenges, for example through updating quality and success criteria for research and engaging broader constellations of researchers and institutions.[2]

To date, the Swedish Science Council is still considered the main source of funding for development research. Applying to other research councils can entail more disciplinary oriented criteria where collaboration with low-income countries is not necessarily a priority (Strand et al. 2020). Furthermore, funding tends to enable individuals and small teams, whereas development research tends to be resource intensive (ibid.; Fellesson & Hårsmar 2013). There is also a positive correlation between the universities that receive the larger part of Swedish development research funding and a history of engaging in Sida-funded bilateral research cooperation. Strand et al. (2020) show that broader support to research environments in the past contributed to strengthening development research as a discipline at certain universities. Opportunities for integration of research activities in aid operations and funding were perceived as being clearer during the era of Sarec, as did communication between Sida, Swedish universities and practitioners. According to Fellesson and Hårsmar (2013), the synergies between U-forsk, bilateral research cooperation and regional and global research programs were reduced after 2008 and multiple reorganizations of the research function at Sida.[3]

Striving for collaboration, coordination and synergies

Former director (2014–2021) Oltorp's impression was that aid overall has become notably more driven by donor interests, although there have been exceptions to and variations of how this comes to the fore. Furthermore, although she could see potential with collaborations involving some of the large and influential philanthropies, she argued that they also tend to push their own interests quite strongly. As part of this trend, new structures tend to be built according to models of how things should be rather than strengthening what is already there. Oltorp pointed out that the list of "like-mindeds" had shrunk towards the end of this decade, which is something that Wohlgemuth and Odén (2019) also raise, underscoring that Sweden has become more alone in its focus on, for example, democracy, human rights and gender. Furthermore, internationally, research aid funds are increasingly channeled to national research councils in the donor countries which means less money goes directly to the actors, structures and researchers in low-income countries: "If we are talking about the decolonization of aid … this goes in the opposite direction" (Interview Oltorp 2021). In response to this, Sida has continued to push for involvement of – and funding to – southern researchers in multilateral discussions and donor coordination.

> If we are to solve the SDGs then we need the contributions of researchers from low-and middle-income countries. They need to be able to define the research questions, be primary investigators, and so on. … We need to find mechanisms by which researchers can collaborate on equal grounds, for example through pooled funding from different national research funders, aid actors, foundations, and philanthropies.
>
> (Interview Oltorp 2021)

Internationally, there are many structural challenges inhibiting increased collaboration between funders on globally open calls. In Sweden, several research councils show interest in funding research in low-income countries, but instructions for auditing and reporting differ considerably between Sida and research councils. This creates challenges for increasing collaboration between them despite the intention of steering documents and policies of increased coordination and collaboration (Interview Oltorp 2021; MFA 2009, 2014). In addition to these administrative hurdles, Oltorp argued, the research bill as well as letters of appropriation from the government to research councils could further improve preconditions by more explicitly encouraging collaboration with low- and middle-income countries. The SDGs have opened up new conversations between Sida and research councils due to the global focus that they entail, and the role of scientific capacity in achieving local solutions to these problems has become clearer (Interview Oltorp 2021).[4] According to Anders Troedsson – who was responsible for the development research portfolio at the Swedish MFA between 2017 and 2022 – the global goals have also helped increase the focus on challenges within, and collaboration with, low- and middle-income countries in the recent research bill.

According to Oltorp, the collaboration and communication between the Ministry for Education and Research, the MFA, Sida and VR was increasingly constructive during this decade, something that all the informants from the latter half of the decade agree on. Challenges for the achievement of synergies include different demands on administration, reporting and auditing at different state agencies. Oltorp maintained that although having two ministries involved (as principals) can be complicated, it can also be considered a strength. According to Karin Schmekel, who worked at the Ministry for Education and Research during this decade (2010–2020), the challenge of marrying the two kinds of politics is not primarily at agency level (like Sida or VR). She argued that a more cohesive and balanced politics by the government in this area would be positive. The two areas, foreign aid policy and research policy, should be equally taken into account (Interview Schmekel 2021).

Concluding discussion

The transboundary challenges that societies are grappling with around the globe are mirrored in the policy development of this decade. The need for scientific research is high up on political agendas and in global agreements, yet inequalities persist when it comes to research capacity globally. On the one hand, deficit narratives still abound in Swedish research aid discourse, signaling that richer countries constitute a blueprint of sorts. On the other hand, the focus remains clearly on strengthening structures that are already in place based on the priorities of partner countries, rather than building new structures based on ideas about what might be missing. Belief in the usefulness of generic and universal knowledge remains strong, at the same time as the necessity of locally (and regionally) produced knowledge is consistently underlined. The universalist and

localist discourses appear to remain intertwined and no particular set of ideas dominates over the other. This mirrors the diversity of development narratives that now coexist (Overton & Murray 2021; Gulrajani 2022).

There is a sort of pragmatism where the universalist and localist discourses meet, where capacities to receive, absorb, translate and use international research are underlined alongside capacities to produce locally contextualized scientific knowledge. This pragmatism and integration can be seen in the discourse on innovation within research aid. It entails that research-based knowledge is now more explicitly conceptualized as one of several important knowledges for addressing both global and local challenges and achieving (sustainable) development and poverty reduction. This signals a more pluralized set of ideas regarding the relationship between research and development. In science policy, challenge-driven research has become part of the international norm for R&D investment during this decade, and this includes a shift towards responsible research and innovation and involvement of a broader set of actors (Nilsson & Sörlin 2017). This is also visible in the discursive development of Swedish research aid. What this means in research aid practice in terms of making use of different kinds of knowledge is not something this book covers, but according to Sillitoe and Marzano (2009), "the local specificity of indigenous knowledge hampers its incorporation in development. It is small-scale, culturally specific and geographically local, which impedes the formulation of universals that might inform wider policy and practice" (p. 16). While they are referring to specifically indigenous knowledge, my reflection here is that working with a diversity of knowledges might demand new approaches in aid.

The sociotechnical imaginary characterizing this decade envisions universities and scientific research as important parts of a large system of knowledge and innovation in partner countries. These systems are seen to share characteristics with each other but also be unique to each country. Research is one type of knowledge that is necessary in this system, and research processes involve a broad set of actors in society to produce socially, ecologically and economically sustainable development.

There is continuity in the policy and modalities of Swedish research aid, but this chapter shows that new (geo)political, organizational and economic preconditions are creating pressure. One could ask whether the boundaries between development research and other research are partly dissolving, thereby calling for a repositioning of the place of research within the aid apparatus. Nilsson and Sörlin (2017) suggest that although the need for capacity building remains strong, research aid appears to be "a classic example of decline by neglect" (p. 86) given that it is not the major concern of any one actor. The research function's position as a boundary organization between different political principals and within the foreign aid landscape has always been tense, but it appears as though the connections and synergies between the different modalities of research aid have continued to weaken. In debates, some argue that funding for research within the Swedish aid budget should increase, while others suggest that a continued integration of traditional development research into

mainstream research is necessary, and that capacity building collaboration should be consistently tied closer to the internationalization of Swedish universities. Though opinions pull in different directions, there are calls for renewed political commitments and improved preconditions for research aid.

Notes

1 It was subsequently updated and published again in 2021, including a 23-page management response from Sida.
2 The PGD is one that theoretically could strengthen the preconditions for collaboration on this issue, although it has not gained the intended traction due for example to unclear divisions of responsibility for implementation and monitoring and lack of funding (Statskontoret 2014).
3 In addition to development research funding through VR, Sida also supports specific research organizations in Sweden that have varied over time; examples during this decade are the International Science Program (ISP), Stockholm Resilience Centre (SRC), Stockholm Environment Institute (SEI), the Swedish Program for ICT in Developing Countries (Spider), and the Stockholm International Water Institute (Sida 2019a, 2021a).
4 Work on the Sustainable Development Goals (SDGs), and the integration of horizontal issues was given more central importance in Swedish aid as conflict was added as one of the *perspectives* to be included in all aid operations alongside poverty, gender, human rights and environment and climate (MFA 2015; Brodén Gyberg & Mobjörk 2021).

References

Allen, C., Metternicht, G & Wiedmann, T (2018). Initial progress in implementing the Sustainable Development Goals (SDGs): a review of evidence from countries. *Sustainability Science*, 13, pp. 1453–1467. doi.org/10.1007/s11625-018-0572-3

Anderson, W. (2020). Decolonizing histories in theory and practice: an introduction. *History and Theory*, 59(3), pp. 369–375. doi.org/10.1111/hith.12164

Biermann, F. et al. (2022). Scientific evidence on the political impact of the Sustainable Development Goals. *Nature Sustainability*, 5, pp. 795–800. doi.org/10.1038/s41893-022-00909-5

Bjarninger, J. (2013). *Det framgångsrika biståndet*. Vulkan Bokförlag.

Brodén Gyberg, V., & Mobjörk, M. (2021). Integration conundrums: framing and responding to climate security challenges in development cooperation. *Sustainability*, 13(5), 2582. Doi.org/10.3390/su13052582

Brodin, A. (2000). *Getting politics right: democracy promotion as a new conflict issue in foreign aid policy*. Doctoral thesis, University of Gothenburg.

Carbonnier, G., & Kontinen, T. (2014). *North–South research partnership: academia meets development?* EADI policy paper series.

Carlsson, G. (2010). *Svar till Gunilla Källenius*. Newsmill.se.

Carmody, P. (2019). *Development theory and South–South cooperation*. Routledge. doi.org/10.4324/9781315147765

Danielsson, A., & Wohlgemuth, L. (2005). *Swedish development cooperation in perspective*. In Hoebink, P. & Stokke, O. (eds) *Perspectives on European development co-operation: policy and performance of individual donor countries and the EU*. Routledge.

Ekengren, A-M., & Oskarsson, H. (2021). Biståndsviljan försvagas. In Andersson, U., Carlander, A., Grusell, M., & Öhberg. P. (eds) *Ingen anledning till oro (?)*. Göteborg: SOM-institute, Gothenburg University.

Elgström, O., & Delputte, S. (2015). An end to Nordic exceptionalism? Europeanisation and Nordic development policies. *European Politics and Society*, 17(1), pp. 28–41. doi.org/10.1080/23745118.2015.1075765

Fellesson, M. (2017). *Research capacity in the new global development agenda: mobility, collaboration and scientific production among PhD graduates supported by Swedish development aid in Africa*. Rapport 2017:08. Expertgruppen för biståndsanalys (EBA).

Fellesson, M., & Hårsmar, M. (2013). *Review of Sidas program for development research 2006–2012*. Final report. Sida Decentralised Evaluation (2013:46).

Gerremo, I. (2020). *Byråkratin innehåller några av utvecklingssamarbetets viktigaste ingredienser*. Föreningen för utvecklingsfrågor (FUF).

Gulrajani, N. (2017). Bilateral donors and the age of the national interest: what prospects for challenge by development agencies? *World Development*, 96, pp. 375–389.

Gulrajani, N. (2022). Development narratives in a post-aid era. Reflections on implications for the global effectiveness agenda. *WIDER working paper 2022/149*. United Nations University, UNU-WIDER. doi.org/10.35188/UNU-WIDER/2022/282-9

Hammond, M. (2021). Imagination and critique in environmental politics. *Environmental Politics*, 30(1–2), pp. 285–305. doi.org/10.1080/09644016.2021.1880062

Horner, R., & Hulme, D. (2017). From international to global development: new geographies of 21st century development. *Development and Change*, 50(2), pp. 347–378. doi.org/10.1111/dech.12379

Hydén, B. (2020) *Sida kan inte outsourca landkännedomen*. Föreningen för utvecklingsfrågor (FUF). https://fuf.se/magasin/sida-kan-inte-outsourca-landkannedomen/ [accessed January 8, 2022].

Jakupec, V., & Kelly, M. (2019) *Foreign aid in the age of populism: political economy analysis from Washington to Beijing*. Routledge. doi.org/10.4324/9780429032011

Källenius, G. (2010). *Vad hände med Sveriges politik för global utveckling?* Newsmill.se. https://fuf.se/magasin/byrakratin-innehaller-nagra-av-utvecklingssamarbetets-viktigaste-ingredienser/ [accessed August 2022].

Kjellqvist, T. (2013). *Biståndspolitikens motsägelser om kunskap och tekniköverföring–från konkret praktik till abstrakt policy*. Doctoral thesis, Blekinge Institute of Technology.

Kraemer-Mbula, E., Tijssen, R., Wallace, M.L., & McLean, R. (eds) (2020). *Transforming research excellence: new ideas from the global South*. African Minds Publishing. doi.org/10.5281/zenodo.3603819

Mählck, P. (2018). Racism, precariousness and resistance: development-aid-funded PhD training in Sweden. *Postcolonial Directions in Education*, 7(1), pp. 11–36.

MFA (2009). Policy for research within Swedish development cooperation 2010–2014. UF2009/75123/UP. Government Offices of Sweden.

MFA (2014). Strategy for research cooperation and research in development cooperation 2015–2021. Government Offices of Sweden.

MFA (2015). Directive (2010:1080) with instructions for the Swedish International Development Cooperation Agency (Sida). Addition Concerning Perspectives SFS 2015:378; Government Offices of Sweden.

Nederveen Pieterse, J. (2017). *Multipolar globalization: emerging economies and development*. Routledge. doi.org/10.4324/9781315312859

Nightingale, A.J., Eriksen, S., Taylor, M., Forsyth, T., Pelling, M., Newsham, A., Boyd, E., Brown, K., Harvey, B., Jones, L., Bezner Kerr, R., Mehta, L., Naess, L.O., Ockwell, D., Scoones, I. Tanner, T., & Whitfield, S. (2019). Beyond technical fixes: climate solutions and the great derangement. *Climate and Development*, 12(4), pp 343–352. doi.org/10.1080/17565529.2019.1624495

Nilsson, D. (2016). *Är vi redo för internationalisering utifrån den nya problemkartan?* www.rj.se/debattinlagg/2016/ar-vi-redo-for-internationalisering-utifran-den-nya-problemkartan/ [accessed August 2022].

Nilsson, D. (2017). *The future of development research uncertain*. Föreningen för utvecklingsfrågor. https://fuf.se/en/magasin/framtiden-for-utvecklingsforskning-osaker/ [accessed August 2022].

Nilsson, D., & Sörlin, S. (2017). *Research aid revisited – a historically grounded analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA).

Odén, B., & Wohlgemuth, L. (2013). *Swedish development cooperation policy in an international perspective*. School of Global Studies. University of Gothenburg.

Overton, J., & Murray. W.E. (2021). *Aid and development*. Routledge. doi.org/10.4324/9780367814755

Paulsen, B. (2012). *Vilken verklighet lever biståndsministern i?* Newsmill.se.

Petri Gornitska, C. (2012). *Biståndsdebatten får inte utgå från förlegade uppfattningar*. Newsmill.se.

Rath, A., Daniel Diyamett, B., Francisco, M., Bazán Borja, M.F. Prada Mendoza, F., & Sagasti, F. (2012). *Evaluation of Sida's support to innovation systems and clusters, a research cooperation initiative*. Sida Evaluation 2012:5.

Rist, G. (2006). *The history of development: from Western origins to global faith*. Zed Books.

Román, L. (2016). *Replik: Mer forskningssamarbete – mer kapacitet*. Föreningen för utvecklingsfrågor. https://fuf.se/magasin/replik-mer-forskningssamarbete-mer-kapacitet/ [accessed March 2023].

Sida (2011). *Sida's annual report 2010*.

Sida (2012). *Sida's annual report 2011*.

Sida (2013a). *Sida's annual report 2012*.

Sida (2013b). *Innovation for growth: evaluation summary: support to innovation systems and clusters within Sida's research cooperation*.

Sida (2015a). *Sida's annual report 2014*.

Sida (2015b). *Support to innovation and innovation systems within the framework of Swedish research cooperation*. Position paper.

Sida (2017). *Sida's annual report 2016*.

Sida (2018). *Sida's annual report 2017*.

Sida (2019a). *Sida's annual report 2018*.

Sida (2019b). *Support to innovation and innovation systems within the framework of research cooperation – taking stock, lessons learned and the way ahead*. Sida.

Sida (2020a). *Sida's research cooperation: research in and by low-income countries, to reduce poverty and build sustainable societies*. Sida.

Sida (2020b). *Sida's annual report 2019*.

Sida (2021a). *Sida's annual report 2020*.

Sida (2021b). *Management response to the strategic evaluation of Sida's bilateral model for bilateral cooperation*. PARTNER/FORSK

Sida (2022). Sida website. www.sida.se/sida-i-varlden/teman/forskning-och-innovation [accessed August 2022].

Sillitoe, P., & Marzano, M. (2009). Future of indigenous knowledge research in development. *Futures*, 41, pp. 13–33.

Statskontoret (2014). *Politik för global utveckling Regeringens gemensamma ansvar?* 2014:1.

Strand, C., Vähämäki, J. Söderbaum, F., Bjarnegård, E., Ewald, J. Hajdu, F., Jirström, M., Lalander, R., & Melber, H. (2020). *Development research in Sweden – a dispersed research community under pressure*. Expert Group for Aid Studies (EBA).

SweDev (2022). Website. www.swedev.dev/about-swedev/ [accessed July 2022].

Swedish Government (2020). *Forskning, frihet, framtid–kunskap och innovation för Sverige*. Government Proposition. 2020/21:60.

Swiss, L. (2021). The globalisation of foreign aid: global influences and the diffusion of aid priorities. In Arrevaara, T., Finkelstein, M., Jones, G.M., & Jung, J. (eds) *Universities in the knowledge society*. The Changing Academy – The Changing Academic Profession in International Comparative Perspective 22. doi.org/10.1007/978-3-030-76579-8_2

Tarschys, D. (2020). *Biståndets förvaltningskostnader För stora? Eller kanske för små?* Rapport 2020:03, Expert Group for Aid Studies (EBA). Sweden.

Thulstrup, E. (2010). *North–South Research Cooperation. How can contributions from Swedish universities be sustained and improved?* Sida.

Transcription (2021). Interview with AnnaMaria Oltorp 062221.

Transcription (2021). Interview with Karin Schmekel.

Tvedten, I., Tostensen, A., Pain, A., Ngugi, C., Bisiaux, R., Paz, R., Chou, P., & Åström, F. (2021). *Evaluation of Sida's model for bilateral research cooperation*. Sida Evaluations 2020:1.

Wohlgemuth, L., & Odén, B. (2019). *Swedish development cooperation policy: trends, lessons learned, and directions for the future*. Policy report, Global Utmaning.

9 Concluding discussion

The boundary organization's conundrum

Foreign aid is a contentious area of politics, full of opinions, perspectives and clashes in the struggle to define futures, "a dramatic and complex struggle (Nederveen Pieterse 2010, p. 18). Add research politics to that and imagine an organization trying to navigate the resulting vast and diverse ideational ocean and fulfill the goals of both political principals and scientific agents. This diversity and the struggles it may entail could be seen as a good thing in that it implies a sort of constant negotiation, but these negotiations also involve many tensions. Though some things do not seem to have changed significantly in Swedish research aid policy, such as the overall goal of the organization, there have been several discontinuities and interesting breaks in how the policies envision the road to the goal. A good way to start a concluding discussion is to return to the beginning and have another look at one of the quotes from Sarec's first annual report:

> Those who are themselves involved in research tend to emphasize the free, unplannable, and innovative aspects and to stress the long-term usefulness of the research activity, while those who are not themselves engaged in research often put the emphasis on the goals, steering, planning and more immediately useful aspects of the same process.
>
> (Sarec 1977, p. 10)

The quote illustrates what in Chapter 4 I called "the boundary organization's conundrum". It raises many interesting questions and illustrates that the combination of science and foreign aid policy can be problematic; the two policy areas have different modus operandi and are somewhat at odds with one other when it comes to the goals and definitions of capacity building, for example. What kind of capacity should be built, why, where and how? And how long should it take? Is it local individual capacity, institutional capacity or both? Is the purpose to contribute to development over a longer time period, or are general, internationally valid research *results* more important? How are these different capacities and results measured and evaluated?

DOI: 10.4324/9781003033271-9

Five decades of science aid: negotiating capacities and imagining research for development

Inspired by the question of why states support science in the name of development (Jasanoff & Kim 2009), the main aim of this book has been to explore what we can learn about the relationship between science and politics in the context of foreign aid. This has been done through analyzing how Swedish research aid policy discourse has developed in the last few decades. I have focused on the case of Sarec and Sida's research unit due to Sweden's pioneer status and long history – it constitutes an interesting case of how states support science for development. Through framing research aid discursively, I have explored how the role of research for development has been constructed in official policy documents as well as through the perspectives of former directors and additional key informants. How is the role of research for development constructed? What roles are the universities and individual researchers ascribed, and how does the aid actor fit into the equation? I have sought to identify discourses as well as the dominant sociotechnical imaginaries and how they envision science and technology in future societies.

In relation to the figure above, my attention has been primarily directed towards the level of text and secondly towards the social practice and wider social practice. The discursive practice has also been accounted for, but to a much lesser

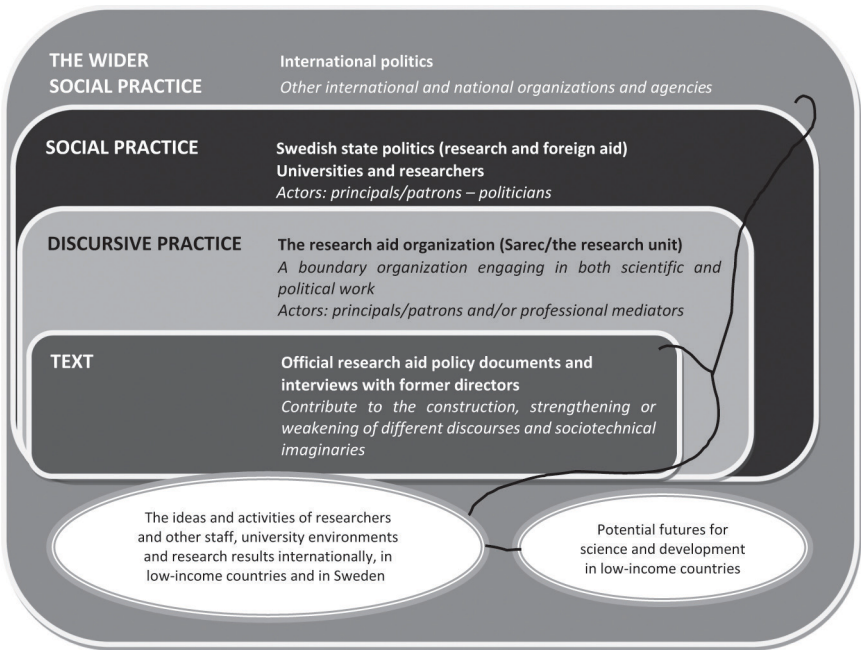


Figure 9.1 Theoretical framework

degree; I have not aimed at capturing a complete picture of the organizational dynamics.

The decades studied have framed the questions above in slightly different manners, different discourses have struggled and sociotechnical imaginaries have varied, but the essential boundary organization conundrum and its capacity building negotiations have remained central. I chose to analyze the policy development through identifying and following discourses and their central objects – the two most central ones being the *universalist* and *localist*. These discourses are an intentional simplification; entanglements, complexities and dependencies between them are both expected and recognized. The discourses represent an ideational heritage of sorts, which keeps being reflected, reinterpreted and renegotiated with time and new influences.

The two discourses share the starting point that so-called Western modern science can contribute to development and that local/national research capacity is important for the production and/or use of research results. The discourses differ in how they define or relate to a number of central objects, namely: the meaning of development, the kind of research considered most relevant for development, the role of high-income countries and aid actors as well as the views of how to best build capacity. Sarec's localist research for development discourse originated in Marxist and dependency theory ideals and can in later decades be associated with ideas from human development and post-development, for example. The universalist discourse originates in ideas about modernization and linear progress and is later fueled by neoclassical economics and neoliberal ideology, for instance. These two discourses reflect the different views on knowledge and development that exist during the decades in question. This does not mean that Sarec (and later the research unit at Sida) consistently and explicitly adhered or opposed itself to specific development theories. Sometimes the references were explicit, as I have shown, to dependency theory, neoclassical economics or systems of innovation. Other times there are no specific associations or references, but lines of argument that could be identified as compatible with certain views. I have illustrated the diversity in general terms, the sometimes-contradictory standpoints; both the continuities and discontinuities.

While keeping in mind that neither discourse operates alone, it is of interest to explore what consequences and implications the different ideas might have. If one has as a point of departure the idea that science is universal, then certain assumptions and modalities in research aid might appear less problematic than if one sees science as deeply contextually dependent and existing alongside other systems of knowledge and knowing. The latter would imply that support needs to be tailored considering many more contextual factors, and using Western science as a such a clear model would not be a given. How one defines the "problem" has consequences for what kind of "solution" is identified. It also affects which sociotechnical imaginaries gain ground. Which types of sciences and technologies are considered essential for future developments? Sometimes ICTs are heralded as key for all development, sometimes health research or agricultural research. These priorities may be short lived or hang around for a long time, but they imply

that certain research is considered especially crucial for the future, while other research is not.

The policy of the early years was characterized by a strong critique of modern science, but there was also a clear belief in the potential of scientific research to enable development. Contributing to local capacity was expressed as the kind of support that should be dominant, but the "inherited" support to international organization research remained the largest budget post as Sarec worked to find its "place" and modes of work. The aid actor role was regarded with some unease in the first years' documents; avoiding dependencies was an active topic of discussion, which meant for example that short-term projects were considered preferable to long-term ones. The aid actor was framed as a catalyst that should preferably not remain involved for too long. Assisting in increasing the number of scientists in low-income countries was seen as a good way to contribute to the building of local research capacity. These scientists would then presumably study issues of development relevance and be able to make use of internationally available knowledge as well. Experimental collaboration with research council structures was also undertaken. The first years included expressions of both the universalist and localist discourses, though the localist perspective was more prominent in the critique of colonialism and dependencies, for example. The universalist discourse was in support of the production of general knowledge and imagined the future of research in low-income countries to be similar to the high-income country research system. The dominating sociotechnical imaginary was, nevertheless, low-income countries with independent capacity to solve their own problems.

The self-critique was toned down considerably during the 1980s, and the universalist discourse was strengthened through an emphasis on applicability and more pragmatic views of research for development. Natural, technological and health sciences were developed to a greater degree than during the 1970s. The universalist discourse was supportive of the idea of "filling gaps" in order to mold the low-income country research systems to match "Western" ones, for instance constructing research councils from scratch. The localist discourse is expressed through strong criticism of international organization research as it was organized at the time, as well as the emphasis on capacity building based on what was already there. Strong belief in the need and use for general knowledge persisted, however, and there was greater emphasis on "global" priorities for research. The sociotechnical imaginary most common in the 1980s documents was quite pragmatic. It was one where the universities in low-income countries have enough researchers to conduct development-relevant research in a wide variety of areas, teach students and make used of international collaboration to solve local problems. Researchers would also help to ensure that the countries' resources are used efficiently.

Throughout the 1970s and 1980s, scientific knowledge was largely considered a public good, but during the 1990s, the commercialization of scientific knowledge started to increase. Swedish interests (mutual interests) and "comparative advantage" were further highlighted more towards the end of the 1990s as well as in the

2000s, but the policy of the 1990s was characterized by a critical revival of sorts. Emancipatory ambitions and concern for grim futures with environmental deterioration dominated the sociotechnical imaginaries of the early 1990s. Sustainable development becomes a key concept through which Sarec's task is interpreted, and the two discourses become more pronounced and closely aligned; a localist universalism, one might call it. Problems are considered global and local contexts are seen as unique, yet solutions are to some extent universal. The future universities needed to be strong in order to handle the many challenges posed by new technologies, economic globalization and environmental deterioration. Cross-disciplinary and applied research were central in this imaginary.

The intertwining of the discourses continued during the first decade of the 2000s; the localist anti-colonial critique remains present, but firmly coupled to universalist ideas about global priorities and quite clear ideas about what a university should be. Universities in low-income countries were at the center of many expectations, and increasingly so after the entrance of the knowledge society discourse. Despite the fact that the conditions often were quite different to high-income countries (demands on higher education not the least), universities were portrayed as hubs for national innovation systems as well as facilitators of poverty reduction. They were expected to play the same roles as universities in high-income countries, and more. It was assumed that science could be harnessed and steered to benefit national goals at the same time as it was conceived of as a highly international endeavor. Economic growth becomes more central.

Universalist	Localism
Development focuses on the present and the future. Economic growth is central.	Development is conditioned by history. Multiple factors important.
The interests and priorities of HIC actors dominate.	The interests and priorities of LIC actors dominate.
HIC actors as experts and catalysts. Not critical of aid actor role.	HIC actors as temporary facilitators. Critical of aid actor role.
Universal knowledge and technology. Results in focus. Technology transfer. Absorptive capacity.	Local production and development of knowledge and technology. Process in focus. Indigenous capacity.
System important, but single factors are very significant.	Many factors important, the system.
Disciplinary research seen as superior. Some research less value-laden than others.	Cross-disciplinary research highly valued. All research is value-laden.
Neoclassical economics, modernization, neoliberal values.	Dependency theory, world systems theory, human development, post-development.
Modern Western science as model for development. Local/national research capacity is necessary.	

Figure 9.2 The discourses

The second decade of the 2000s continues to reflect a tense union of the discourses. Transboundary and global challenges characterize this period, and innovation systems become even more central to the sociotechnical imaginary. Universities remain envisioned as central actors, but they are more explicitly situated as a part of larger systems of knowledge and innovation that can share general aspects in common across countries but that also manifest uniquely in each context. These systems, consisting of many actors, will create globally and locally sustainable development together through transformative social (and economic) innovation. Economic growth takes a step back.

The merger of the localist and universalist discourses is exemplified by the increased use of systems of innovation and the emphasis on global priorities like the MDGs and the SDGs, both of which also have explicit ties to local contexts and their specific preconditions. Overall, Swedish research aid policy has consistently paid attention to the uniqueness of context and the priorities of local actors at the same time as they have been concerned with filling gaps and producing general knowledge. This also seems to be in line with what previous research illustrates. King and McGrath suggest that the trends from the late 1990s and early 2000s reflect an attempt to more explicitly marry globalization with poverty reduction and solidarity with self-interest. Later studies have concluded similarly, that development paradigms have in certain respects converged (Nederveen-Pieterse 2010; Overton & Murray 2021; Gulrajani 2022). Although there is also plenty of critique, the use of a systems of innovation approach or Mode 2 science in capacity building is often framed as an effective way to support development-relevant application. Systems of innovation may seem to capture, at least in theory, all the different dimensions of knowledge production and capacity development that research aid has aimed to support (cf. Pfotenhaur & Jasanoff 2017). The practice on the ground, however, is quite diverse, as has been illustrated by examples in this book. The practical everyday implementation of research aid differs depending on country, time period and the people and actors involved.

The fact that the two discourses seem to have become more closely intertwined does not remove the tensions between some of these different views and standpoints. While the diversity in the policies can be considered a sign of productive negotiations, shedding light on the historical trends and tensions can be useful for a discussion on present and future policy, including the imaginaries being pursued directly and indirectly.

The special case of research aid

In the 1992 evaluation on bilateral cooperation, Widstrand and Valdelin stated "Sida is Sida and Sarec is Sarec and the twain shall never meet" (Widstrand & Valdelin 1990, p. 27), illustrating the fact that research aid has been a special case in several ways. This reflection has been made by many of the former directors since then, and I have shown that it has also returned in subsequent evaluations. The task of research aid has clearly entailed strenuous boundary-balancing in order to fulfill its objectives in relation to both its main political principals

(consisting of the Ministry for Foreign Affairs, the Ministry for Education and Research and the Swedish government and parliament). The roles and discourse of the political principals in this case have not been studied in depth, but the government, the parliament and the two ministries are responsible for producing the general policies and goals that agencies like Sida has to adhere to. While this division of responsibilities can be positive in terms of the possibilities and overlaps it creates, recent studies also suggest that this has also entailed a lack of clear ownership (Nilsson & Sörlin 2017).

Swedish research aid entails handling political and scientific influences from several directions, being on the boundary between two political policy spheres (Guston 1999). The overarching goal of Swedish foreign aid is to contribute to poverty reduction in low-income countries while the goal of research – somewhat simplified – is to produce new knowledge and contribute to national development. This is also an interesting issue since the institutional setting for research is national, yet research itself has numerous international components and the results do not necessarily benefit the country in which the research is financed and housed (cf. Edqvist 2009; Benner 2008; Angeles & Boothroyd 2003). The two policy areas are not always compatible; goals are quite different, results are measured differently in the two fields and commitments above and beyond standard internationalization measures are required to increase cooperation with researchers in low-income countries since it is not as clearly a prioritized issue in research policy. The fact that research cooperation with low-income countries

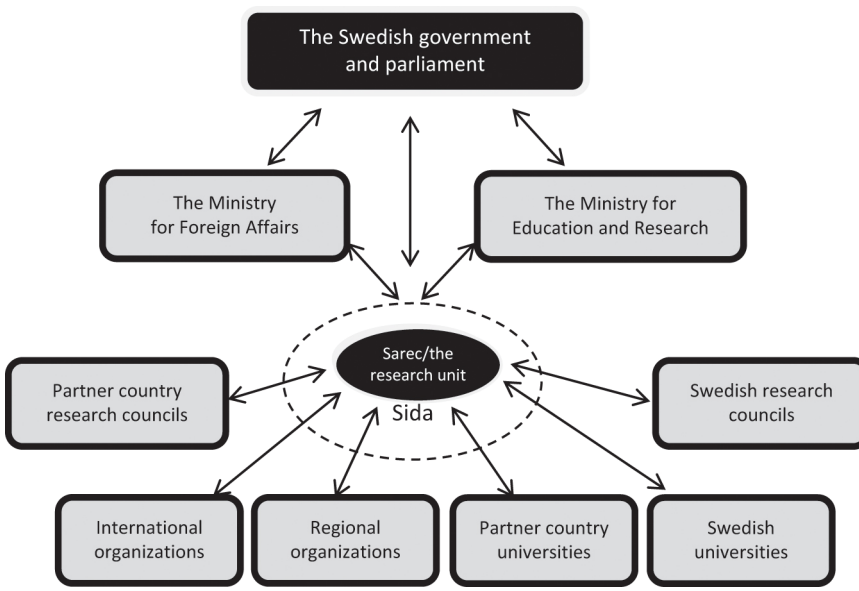


Figure 9.3 The boundary organization

remains a relatively marginalized issue in research politics places the research aid actor in a challenging position.

More arrows could be drawn, and there are of course other actors, but it is meant to illustrate that there is a diverse set of actors involved in imagining and doing research for development in a variety of modalities and relations.

It appears as though Swedish research aid policy in the period studied has consistently been both innovative and mainstream when compared to its principals, research and aid politics. Sarec was a pioneer in the work with local capacity building through bilateral cooperation before the concept of capacity building was taken up by development organizations in general. Sarec policy discussed innovation and conceptualized universities as part of a bigger knowledge system before the knowledge society and innovation system buzz gained strong momentum. Furthermore, the documents from the 1970s talked about situated researchers and the context dependence of technology, criticizing Swedish university research priorities and advocated cross-disciplinary research early on. At the same time, Sarec's and later FORSK's support to building research capacity also mirrored mainstream conceptions of the role of science dominating at the time in relation to prioritized research areas, for example, and Western research systems constituted the model(s) to aim for.

A very prominent theme in the interviews covering the first four decades was that Sarec was constructed as a scientific organization above all, and research aid as something that in fact was not compatible with other aid; other aid was considered much more political. Sarec portrayed itself as first and foremost supporting long-term capacity building through cooperation based on independent, scientifically objective principles. The former directors consistently point out the difference between scientific evaluation of efforts and political decisions about what to do.

Starting out in a research policy climate that invested in sector science, it is perhaps not surprising that development-related research at Swedish universities came to be funded mostly by Sarec, and not by other research councils. Swedish research bills have relatively consistently marginalized development research. Development-relevant research has been considered less excellent than other research in a national perspective. Research cooperation with high- and middle-income countries has in research bills been framed as more desirable and productive than cooperation with low-income countries. U-forsk (the research council function of Sida) moved to the Swedish Science Council (VR), but other research councils are not similarly tasked to support development research. Although research councils increasingly do collaborate on calls that relate to development, and "development researchers" can apply to other research councils with their topics, development research largely remains associated with VR.

The policy of Swedish research aid has underlined the need for local research capacity in accordance with national priorities since its start, and local research capacity has consistently been framed as part of a larger system nationally, regionally and internationally. The expressions differed over the decades, but Swedish research aid policy was consistently emancipatory in its ambitions while

simultaneously underlining claims to universality and upholding the high-income country research systems as a model. The tensions of the different boundaries are consistently present.

Since I have not studied research aid in *practice*, I cannot say more than the evaluations about the diversity of results of projects and cooperation in partner countries. The same goes for how the low-income country actors perceive Swedish research aid policies and ways of working. I have, however, been able to draw some conclusions in relation to previous research. Both researchers and policymakers claim that linear and stage-based development theories have been replaced by more dynamic and system-oriented views. Although there are signs of discursive change during the last decade, the idea that Western models of science are the way forward is still quite central. One could argue that this might instead enforce the "old" linear ideas, reducing the number of futures that can be envisioned instead of embracing some sort of diversity, as could an increased focus on research uptake. The consequence of this may be that inequalities continue to widen. Given the diversity of approaches in research for development in donor agencies internationally, a relevant question to ask could be whether the transformative ambitions expressed in the recent decade in both policy and practice will enable the forging of new paths? Can research aid embrace pervasive multiplicity, contribute to epistemic justice and enable collaboration on more equal terms in polarized geopolitical times?[1]

Note

1 In December 2022, the newly elected conservative Swedish government decided to halve Sida's research aid budget. It remains to be seen what effects this will have.

References

Angeles, L., & Boothroyd, P. (2003). Canadian universities and international development: learning from experience. *Canadian Journal of Development Studies*, 24(1), pp. 9–26.

Benner, M. (2008). *Kunskapsnation i kris. Politik, pengar och makt i svensk forskning*. Nya Doxa.

Edqvist, O. (2009). *Gränslös forskning*. Nya Doxa.

Gulrajani, N. (2022). Development narratives in a post-aid era. Reflections on implications for the global effectiveness agenda. *WIDER working paper 2022/149*. United Nations University, UNU-WIDER. doi.org/10.35188/UNU-WIDER/2022/282-9

Guston, D. (1999). Stabilizing the boundary between US politics and science: the role of the office of technology transfer as a boundary organization. *Social Studies of Science*, 29(1), pp. 87–111.

Jasanoff, S. & Kim, S.H. (2009). Containing the Atom: Sociotechnical Imaginaries and Nuclear Power in the United States and South Korea. *Minerva*, 47(2), pp. 119–146.

Nederveen-Pieterse, J. (2010). *Development theory* (2nd ed.). Sage Publications

Nilsson, D., & Sörlin, S. (2017). *Research aid revisited – a historically grounded "analysis of future prospects and policy options*. Report 2017:07. The Expert Group on Aid Studies (EBA).

Overton, J., & Murray. W.E. (2021) *Aid and development*. Routledge. doi.org/10.4324/9780367814755

Pfotenhauer, S., & Jasanoff, S. (2017). Traveling imaginaries: the "practice turn" in innovation policy and the global circulation of innovation models. In Tyfield, D., Lave, R., Randalls, S., & Thorpe, C. (eds) *The Routledge handbook of the political economy of science*. Routledge. doi.org/ 10.4324/ 9781315685397

Sarec (1977). *Sarec's first year: annual report 1975/1976*.

Widstrand, C., & Valdelin, J. (1990). *An evaluation of the bilateral institutional research cooperation supported by Sarec*.

Index

Note: Page numbers in *italics* refer to figures. Endnotes are indicated by the page number followed by "n" and the note number e.g., 99n6 refers to note 6 on page 99.