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# Aiding Science: An analysis of Swedish research aid policy 1973-2008

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# Introduction and background

> 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.[1]
>
> - *Sarec Annual Report 1977/1978*

Aid to research grew considerably in the 1990's and 2000's as an increasing number of aid actors began to underline the importance of higher education and research for development.[2] Science and technology have been, and remain, strongly associated with progress and modernity. The Swedish state has supported research for development in different forms since the 1950's, but the formation of the Swedish Agency for Research Cooperation with Developing Countries (Sarec) in 1975 represented a shift in the view of how science was seen to contribute to development. Sarec, along with Canada's International Development Research Centre (IDRC)[3], was one of the pioneer state actors in this field. Sarec's task was to support development research and contribute to building research capacity in low-income countries. As illustrated by the quote above, the focus shifted from *transfer* of knowledge and technology to the concept of *capacity building*, something which in aid terms required a greater focus on bilateral cooperation. Development-related research results alone were in this perspective not enough; it mattered how, where and by whom research was being undertaken.

Why analyze research aid policy? Sarec's pioneer status and relatively long track record warrants interest and this case can be used to shed light on the larger question about how states try to contribute to development through science. The policy documents reflect aid actors' intentions and presumably have an effect on the type of development efforts pursued in low-

[1] Sarec (1979). Sarec's Second Year, Annual Report 1977/1978. pp25-26
[2] Fisher, E. and D. Holland (2003). "Social development as knowledge building: research as a sphere of policy influence." Journal of International Development 15(7): 911–924. p912, King, K. and S. McGrath (2004). Knowledge for Development? Comparing British, Japanese, Swedish and World Bank Aid. New York, Zed Books Ltd. p38. One of the reports said to have been most influential was the World Bank's Dahlman, C. and T. e. Vishwanath (1999). World Development Report 98/99: Knowledge for Development, The World Bank.
[3] The UN started working with development research soon after its inception in 1945, and the first national development agency to tackle the issue of research capacity was the International Development Research Centre (IDRC) in Canada 1970.

income countries. The goals and methods of aid actors depend in part on what views of development they adhere to for example. Science and technology policy researcher Andy Stirling 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. As a result, our imaginations of progress are, ironically, a principal factor conditioning the ways our progress actually unfolds."[4] In other words, it is important to critically analyze which types of futures that are envisioned in aid policies. Shedding light on historical policy trends can help to ensure that the paths aid actors contribute to are not too narrowly defined, "supply-driven" or colonialist for example.

The study[5] investigated how Swedish official aid policy has constructed the role of research for development in low-income countries between 1973 and 2008. The support to development-related research activities also involved other Swedish state actors and organizations during different periods, focusing on the case of Sarec is warranted since it was by far the most central actor. The overarching purpose of the study was to contribute to an understanding of how science has been conceived of as a tool for progress in the post-World War II period. Questions that I asked included: How was 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? I sought to identify trends and patterns (through discourse analysis[6]) as a way to analyse the kind of futures that were imagined in the policy documents with respect to the role of science.

The study ends 2008 given the fact that Sarec is radically reorganized that year along with the rest of Sida, and the material available after that date is not as consistent as it had been up until then. The empirical materials I used were annual reports, methods documents, evaluations, government bills and investigations, and parliamentary records. They are all official policy documents. I have also conducted interviews with all the former directors of Sarec as well as one key informant.[7]

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[4] Stirling, A. (2009). "Direction, Distribution and Diversity! Pluralising Progress in Innovation, Sustainability and Development." The STEPS Centre.p5

[5] Brodén Gyberg, Veronica (2014), Aiding science - Swedish research aid policy 1973-2008. Linköping Studies in Arts and Science No.594, Linköping University.

[6] Informed by both Michel Foucault and Norman Fairclough, I understand discourses as historically situated practices (such as speech and written text) which contribute to the formation of the objects and the identities of subjects that they refer to. Fairclough, N. (1993). Discourse and Social Change, Polity Press. p3, Dreyfus, H. L. and P. Rabinow (1983). Michel Foucault. Beyond Structuralism and Hermeneutics (2nd ed), The University of Chicago Press, and Howarth, D. (2000). Discourse, Open University Press.

[7] All directors were interviewed, with the exception of Karl-Erik Knutsson (the first director) who passed away in 2002. More details about each of the informants can be found in chapter three of the dissertation but the interviewees were: Lars Anell, Bo Bengtsson, Anders Wijkman, Johan Holmberg, Rolf Carlman, Berit Olsson, Tomas Kjellqvist and Anders Granlund. I also interviewed Björn Hettne (key informant), whom in addition to having been Knutsson's assistant in the 1970's also wrote the appendix on development theory to the SOU 1973:41 and a number of subsequent Sarec publications on development theory.

## Situating Sarec and its boundaried policy

The organizational history of Sarec can be summarized as follows. Between 1975 and 1995, the organization was a free-standing public agency, after which it became a *department* within Sida. In 2008, Swedish aid politics changed significantly and Sida was reorganized. Sarec ceased to exist in the form that it had up until then, it changed names to the Secretariat for Research Cooperation and the majority of its staff was moved to other parts of Sida.[8] [9] The timeline below outlines in a rough manner a small selection of the events of interest and relevance to the study.

| 1960 | | | | | | 2010 |
|---|---|---|---|---|---|---|
| **Sarec/ Sida-Sarec** | Forskning för utveckling SOU 1973:41 | Sarec was formed 1975 | Sarec independent agency 1979 10 year evaluation 1985 | 20 year review 1995 Sarec merged with Sida 1995 | 30 year evaluation 2006 | Sarec disbands 2008 New strategy for research aid 2010-2014 |
| **Foreign aid** | Sida was formed 1965 | | The environment was included in a new Swedish aid goal 1988 | Sweden joined the EU 1995 | Policy for global development 2003 | Foreign aid politics and Sida reorganized 2008 |
| **Research** | | First Swedish Research Bill 1981 | Research bill: Research for knowledge and progress 1992 | Research bill: Research and society 1996 Research bill: Research and Renewal 2000 | Research bill: Research for a better life 2004 | Research bill: Research and Innovation 2008 |

[8] Another reorganization occurred in 2011. By then, the staff working with research had been reduced by 50%. Staff are now divided between a secretariat (research unit), the long-term program department (PROGSAM) and Swedish Embassies. Essentially the task remains the same, the budget remains around one billion crowns but the responsibilities for implementation are more spread out.

[9] The total budget for Swedish aid has increased over time, although it has fluctuated up and down quite a bit throughout the decades. In 1975 the budget was 2.35 billion Crowns and in 2012 it was 37.8 billion Crowns. The greatest and most consistent increases have occurred between 2000 and now, according to Openaid.se. (2013). "Sveriges totala bistånd." Retrieved 102213, from www.openaid.se.. The budget for research (most of which has been channelled through Sarec and/or Sida) was 75 million crowns in the beginning and in 2012 it was around one billion crowns.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Inter-national aid and research events** | UNCSAT conference Geneva 1963 | IDRC was formed 1970<br>UN world plan of action S&T4D 1971 | UNCSTD conference 1979 | World Bank Report on Knowledge for development 1998 | Millennium development goals 2000 | Paris Agenda on aid effectiveness 2005 |

**Table 1: timeline**

The "place" of research aid in Swedish politics is the middle of two political policy spheres, research and foreign aid, the former belonging to the ministry of education and research and the latter to the ministry of foreign affairs. This makes Sarec a *boundary organization*[10], one that has to perform a task involving at least two distinct political areas. According to Guston, these organizations "internalize the contingent character of the science/politics boundary".[11] 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).[12]

The overarching goal of Swedish foreign aid is to contribute to poverty reduction in low-income countries while the goals of research – somewhat simplified - are to produce new knowledge and contribute to national development.[13] Internationalization is a priority in research policy, but cooperation is encouraged with middle and high-income countries first and foremost.[14] The goal of Swedish *research aid* is to support development-relevant research and contribute to building research capacity in low-income countries, and the research agendas pursued are to be based on low-income country priorities. While research seems relatively well-recognized as a tool in foreign aid policy,[15] development-relevance seems to be

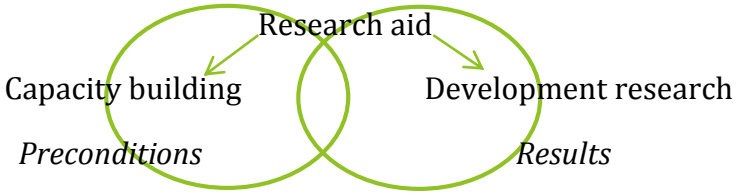
[10] As discussed in Guston, D. (1999). "Stabilizing the Boundary between US Politics and Science: The Role of the Office of Technology Transfer as a Boundary Organization." Social Studies of Science 29(1): 87-111
[11] Ibid. pp90-91
[12] Ibid. p91
[13] See for example the discussion about growth and increased commercialization of research in (2008). Ett lyft för forskning och innovation. Regeringens proposition 2008/09:50. T. S. Government. pp1-2. 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 "housed." See for example Edqvist, O. (2009). Gränslös forskning, Nya Doxa. and Benner, M. (2008). Kunskapsnation i kris. Politik, pengar och makt i svensk forskning, Nya Doxa.
[14] This seems to be the case in Canada as well, for example; cooperation with middle and high-income countries is encouraged but commitments above and beyond standard internationalization measures need to be made in order to increase cooperation with low-income countries. See Angeles, L. and P. Boothroyd (2003). "Canadian Universities and International Development: Learning from Experience." Canadian Journal of Development Studies 24(1): 9-26.
[15] Even though some evaluations show that there might be differences in opinion regarding exactly how this "tool" should be used.

considered more like a desirable *side effect* in research bills.[16] The two policy areas are not always compatible; goals are quite different, and results are measured differently in the two fields. The fact that research cooperation with low-income countries is a relatively marginalized issue in research politics places the research aid actor in a challenging position.[17]

## Producing results versus building capacity: research aid methods

It is important to distinguish between support to *development research* and support to *building research capacity*[18], the two are related in many cases but have slightly different goals. Development research is research which 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 of secondary importance.

The support from research aid actors may consist of activities such as split research training programs for low-income country students to attain MSc's and PhD's, 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 capacity building or development research.




The level of research aid actor that my study focused on was the *national aid agency* level. National aid agencies comprise a different type of research aid actor which to a higher degree

[16] In the research bill from 2012 no significant changes can be noted in this area, research partnerships with middle-income/BRIC countries are still encouraged on a strategic basis.[16] Low-income countries are largely absent, except for a section of the bill where it is established that the Swedish Research Council (Vetenskapsrådet) takes over the responsibility for distributing the funds for Swedish development research and that applications will be judged primarily by scientific relevance.
[17] Despite the PGU and references to cooperation with low-income countries in research-related government bills and increased attention to internationalization, Sarec's research council remains the heaviest funder of development research. See also Edqvist, O. (2009). Gränslös forskning, Nya Doxa.
[18] The definition of research capacity includes everything from individual researcher's skills to information and communication technologies, laboratories, and national research policies.

than other actors focuses on contributing to building research capacity in low-income countries. Examples are the Canadian International Development Research Centre (IDRC), the Netherlands organisation for international cooperation in higher education (Nuffic), and the Swiss Commission for Research Partnerships with Developing Countries (KFPE). 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, they can encompass for example:

- 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 information and communication technology, administration systems, or labs),
- supporting the development of national, regional, and international research networks, or
- directly financing research for development and poverty reduction (in high-income countries, low-income countries, or both).

Some actors place larger emphasis on for example training programmes or infrastructure, while others focus more on policy level efforts, and others do all of the above. Sometimes cooperation with other actors in industry and civil society are encouraged or demanded.

Sarec has aided research through three major programmes which in turn include several different forms of cooperation or support that are exemplified in the next section. The *bilateral* programme (involving cooperation between universities in Sweden and universities in low-income countries) has been considered the main way through which to contribute to *capacity building*, while the other two areas (support to *Swedish development research* and to *international research organizations*) have been classified as *thematic* given that their main aim has been to support development relevant research. Though the two overlap in terms of effects, bilateral support is more focused on strengthening the *preconditions* for research whereas the thematic support is *results*-oriented. Sarec produced annual reports, evaluations and a number of other documents through which it is possible to follow quite consistently how their policies developed.

## What is the problem and how do we solve it? Localistic versus universalistic assumptions and imaginaries.

Two strong and contrasting discourses can be identified from the start, and they can be traced throughout the entire period studied. I call them the localist and the universalist discourses. They share the starting point that modern science can contribute to development and that

national research capacity is an important component in this. The two perspectives frame development problems and their solutions differently.

| **Universalist** | **Localist** |
|---|---|
| Development is focused on the present and the future. Systems are important, but single factors are significant, not least economic factors. | History affects the preconditions of development in the present. Systems are important and many factors are significant, not least social factors. |
| Universal knowledge and technology. Results-oriented. Technology transfer. Absorptive research capacity (ability to make use of international research results) | Local knowledge and technology. Process-oriented. Local research capacity (ability to conduct research independently) |
| The interests and priorities of high-income countries dominate, | The interests and priorities of low-income countries dominate. |
| High-income country actors are experts and catalysts. Low level of critique regarding the role of aid actors. | High-income country actors supply temporary assistance. High level of critique regarding the role of aid actors. |
| Disciplinary research is highly valued. Some research considered less value-laden than other research (natural and technological sciences). | Cross-disciplinary research is highly valued. All research is considered value-laden. |
| Modernization theory. Neoclassical economics. | Centre-periphery models. Dependency theories. |
| Modern science as a model for development<br>Local/national research capacity is necessary | |

**Table 2: The discourses**

An important point to make here is that how one choses 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 whether investment in a research council model is adequate in Mozambique for example. The context may still be considered important, but the context would to a larger degree be expected to adapt to enable the council rather than the other way around. A more localist view of development would be more likely to ask whether a science council is the best means to achieve the goals of research aid in that particular country and context.

An equally important point is that both views consider modern science 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 differ in the way they define 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.

At times 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 each 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, support to international organization research is less problematic since the results are theoretically applicable in all contexts. The localist discourse, however, would tend to favour regional support and bilateral cooperation to strengthen national research capacity.

Even though certain development theories can be associated with each discourse, they are both modernistic in the sense that "Western" research is the model for low-income country development, and they both have emancipatory ambitions in that low-income country self-reliance is a goal. Modern science is certainly questioned form time to time, but it nonetheless remains the model, which makes sense since otherwise one might claim that Sarec did not have a raison d'être. Science was considered a means to solve problems and control events, regardless of whether extended goal is to reduce poverty or increase economic growth, or both.

## Glimpses into each decade

Short summaries of the 70s, 80s, 90s and 2000s, related to the type of activities they pursued and the policy key words. Imaginaries. Se antologikapitel.

## Now what? Potential practical implications

Though a diversity of ideas and sometimes inconsistent theories is to be expected in public policy, an active awareness of the various theoretical underpinnings could contribute to a more consistent, effective and flexible policy. Reference Nederveen Pieterse

Looking beyond the policy, it is important of course to question how the implementation works and are there sufficient resources and organizational preconditions to live up to the intentions in the policy? The interviews with former directors indicate that one of the reasons why Sarec seemed to be quite successful at capacity building was the fact that they had a critical mass of knowledgeable staff who also worked relatively closely. Another factor which was presented as crucial for being able to do "good research aid" was having the ability to work on several levels and with different types of aid. This entailed having influence on what kind of

projects the large international organizations engaged in for example, and then being able to coordinate and create links between international research and bilateral cooperation. This ability was reduced through reorganizations, and responsibilities for different levels and types of aid pertaining to research were not as easily "harmonized" anymore.

Previous evaluations have pointed to the negative effects of personnel cuts at Sida on research.[19] This can also be illustrated by the recent publication of Scidev.net, who published a follow-up story on the state of Swedish research aid post-2008.[20] Among other things, it becomes clear that the capacity-oriented efforts have been reduced considerably for various reasons. When you look at the policy ambition for the same period, however, the changes are not so great. The policy for 2010-2014 was very similar to its precedents concerning the task and major modes of work, but the emphasis on national systems of innovation and economic growth was stepped up, as exemplified by the quote below:

> A country's allocated resources to research is mirrored in international publications and patents which in turn correlate with the amount of researchers, research centres such as universities and institutes, libraries and laboratories as well as the level of strategic research planning. […] Research is an important component in the development of what we call the "knowledge society." In this lies an interplay between research and society in general; a so-called innovation system.[21]

So what does history teach us in this case? At the risk of sounding monotonous, it depends on what we are striving for. In essence, the study enables critical thinking about research aid policy today; it can shed light on the types of theories underlying the politics of aid so that its practical realities may serve development in a way that all the central stakeholders can agree on.

Assuming all countries should have the same system may foster continued unequal relations – expert/novice relations etc. At the same time, the currently dominating system for scientific collaboration and publication is steered by certain routines and standards (peer review, conferences, certain expressed values etc) which are practical to follow in order for international collaboration to be made possible. Perhaps it is a matter of fostering diversity in the system as well as adapting to the dominating forms. Either way, simply assuming that a high-income country university can and should be copied and pasted into a low-income country context is not desirable. It may instead be a discussion about which functions of a university

[19] REFERENS

[20] Scidev.net (2014), *Swedish government control 'harming SIDA's research,* http://www.scidev.net/global/cooperation/news/swedish-government-sida--research.html, accessed 091214. They also published a story on my dissertation earlier this year: Scidev.net (2014), *Aid funders urged to recognise assumptions in research cooperation,* http://www.scidev.net/global/aid/news/aid-funders-assumptions-research-cooperation.html, accessed 091214.

[21] (2009). Strategi för Sidas stöd till forskningssamarbete 2010 - 2014. Utrikesdepartementet. p7

institution are required in this particular context and questioning which stakeholders and interests are involved in the negotiations. Who controls the money, the reporting and administration? According to previous research as well as my own, there are a number of issues that should be actively discussed between cooperating parties: list

Aid actors should consistently ask whether their policies can be formed to strengthen equality and diversity. That includes recognizing and valuing various kinds of knowledge and to actively assume and make explicit that there are mutual benefits to any research collaboration. Agree on strengths and weaknesses in collaboration, discuss inequalities openly and explicitly.

Given that research collaboration has been seen to contribute considerably to sustainable scientific structures (where low-income countries themselves do the research), there might be good reason to look more closely, once again, at how the research in international organizations comes to be used for development in low-income countries more directly. Perhaps at least some of these funds could be redirected to local capacity building efforts instead. Kolla senaste utvärderingarna.

Others (Edqvist for example, and several of the former directors) have suggested that aid to research should not be couched within the general foreign aid apparatus given that it implies increased politicization and thereby assumed to be more subject to short-term priorities. Instead, Edqvist and some of the former directors have suggested that there should be an independent organization where scientific values can dominate and a critical mass of knowledgeable people can coordinate research cooperation and finance capacity building.