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Doing Research Pilot Phase Synthesis

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Abstract

Doing Research is one of the key programs implemented by the Global Development Network (GDN), and aims to understand, map and access social science research systems to analyze structural barriers to doing research, and highlight pathways for action. Looking at the production, diffusion and uptake of social science research, it supports research-based evidence and researcher empowerment to enhance public debate and policy discourse. The program started in April 2014 with a pilot phase, supporting seven research teams from eleven countries in Africa (Cameroon, Côte d'Ivoire, Niger, South Africa), Latin America (Bolivia, Paraguay, Peru) and Asia (Bangladesh, Cambodia, India, Indonesia) to investigate the research environment in these countries. They used a range of different scientific approaches, from qualitative historical and social analysis to political economy and econometric assessments. This document presents the results and learning from the pilot phase.

Keywords: social science research, institutions, research systems, enabling environment.

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Executive Summary

Developing countries are most often characterized by low research capacity, a sub-standard quality of research, poor advice to governments, or unused and 'lost' knowledge. To address any of these challenges, we first need a clear set of defining properties that characterize an effective enabling research environment.

After a brief reminder of the basis and rationale of the Doing Research program, this report examines the different approaches and methodologies used in the pilot studies, followed by the main findings and their relevance for the 'Doing Research' objectives. It describes each of the seven pilot studies, and discusses their methodological approach and limitations. The main conclusions are presented, revealing interesting complementarities, which have also informed the design of the proposed project scale-up. The results of this transversal analysis are then presented, through a picture of how the research environment could be deconstructed and analyzed. These findings were then reviewed by a panel of international experts, with the aim of further developing a common framework for analyzing the research environment.

The diversity of approaches and methodologies has been challenging but has revealed two main findings: 1) the relevance of adopting an interdisciplinary approach, including historical perspectives; and 2) the importance of differentiating research systems (in all their complexity) from the academic research sector – the performance and characteristics of the latter depending on the former. In terms of methodological choices, mixed methods seem to be the most effective: qualitative approaches complemented by quantitative data collections. One question remains unanswered and should be clarified before any testing: how do we define the scope of social science knowledge producers?

Doing research is a professional activity, integrated into a specific regulatory framework – which must be taken into account when evaluating research systems. The practice of research depends directly on rules and norms, formal and informal, set up by different authorities and at different scales, from local to global. The systemic approach, adopted by the majority of the authors, reminds us that the actors involved are also stakeholders, who have the capacity to influence the rules governing the research environment. The diversity of approaches in the seven pilot studies also reminds us that any attempt to understand an object of study (here, the research system) requires a clear definition of its boundaries. In our case, this is a major challenge. While it is important to analyze the wider context, and measure its influence on the social science research system, we also need to limit the scope of the analysis, simply to make it possible.

The transversal analysis of the pilot studies also confirmed the relevance of the initial approach proposed at the outset of the program: one related to supply and demand for research. The notion of a research market is consistent with the systemic approach, to the extent that it implies competition, debates and power issues, which together constitute the dynamic core of the system.

Any research process first needs inputs to get started. Demand originates from the public or private sectors, and at national and/or international levels. All the pilot studies discussed the question of the share of public/private and national/international origins of funding. The ideal situation seems to be a balanced position, whose properties and indicators are yet to be precisely defined. Some studies highlight the fact that demand does not necessarily equal funding. The way

demand for research is expressed by society is often disconnected from research funding schemes, but nevertheless influences the production of knowledge. This 'indirect demand' from society is part of the research system and must be considered. A minimum amount of 'permeability' between the application of research and social issues is desirable to ensure the autonomy and sustainability of knowledge production.

Nevertheless, demand is also related to funding, a crucial element in the production of knowledge. A marginal share of demand originates from the private sector, but is growing in importance in modern capitalist societies, creating potential opportunities for social science institutions. However, this also threatens the room for basic academic research, rarely considered a priority by funding agencies, and even less so by the private sector – much more interested in knowledge directly applicable to the definition and application of public policies or understanding markets and consumer behavior.

Identifying the characteristics of research supply seems to have been, for the authors of the pilot studies, more complex than the characterization of demand – which often only included public institutions and/or international cooperation actors. The analysis of supply shows, in most cases, a diversity and plurality of knowledge production. Whatever the criteria selected to characterize research supply, the concept of critical mass (and the lack of it in many developing countries) is always central.

The relationship between supply and demand raises the question of the balance between supply of public research and production originating in the private sector. What are the implications for countries if all (or most of) the knowledge produced comes from private initiatives (supported by private companies and/or international donors)? At what strategic points should state authorities become involved in the production of knowledge? The pilot studies show that too much state intervention – as well as not enough – leads to manipulation.

The production of knowledge, understood as a process of transformation, is central to the understanding of the research system. The pilot studies confirm that doing research requires a whole range of skills (beyond scientific skills), which are essential to effectively operate research activities. Human and financial resources are necessary, as are transparent rules of the game. The quality of management of these resources influences the entire process of production. In addition to adequate wage levels, support for career development, vocational training and bonus systems for publications are highlighted as key elements. Further initiatives to train students on research, including after the first year of graduation, are also worth considering.

Access to financial resources – which normally involves some form of competitive bidding process – is, of course, an important condition. This requires specific skills (among them, writing skills, but also knowledge of donor's expectations and culture). It also requires access to existing knowledge via libraries and subscriptions to scientific journals.

Once the finances have been obtained, researchers must deal with a whole range of activities; this includes the management of human and financial resources, internal and external communication, and the wider dissemination and/or application of results (publications, patents, etc.). Researchers may also have to deal with ethical, legal or quality issues.

Two more points, raised by the pilot

studies, concern 1) the importance of English language skills and with it, access to the international knowledge market and publications; and 2) access to social capital and networking opportunities, which facilitates research collaborations as well as the dissemination and uptake of research.

Understanding how the research system works must not be limited to the production of knowledge. We must also consider how it is used and how far it travels. Results are meant to be shared within the academic world, not only for the progress of science, but also to gain public recognition and advance careers. A dedicated professional space and dissemination facilities are fundamental to the project cycle. The dissemination of results, specifically their publication at the national level, assumes the existence of a peer evaluation system and a quality assurance system. This requires a 'critical mass', which also allows the creation of discussion groups and encourages collective emulation, through learning societies, schools of thought or other forms of collective action/reflection. Finally, there has to be a level of political freedom so that researchers are not hampered by exposure to censorship (in whatever form) by state authorities.

Based on this transversal analysis, and with the aim of producing in-depth analyzes at the regional level and to compare national systems, we proposed a first draft of a common framework of analysis. Our aim is to develop an understanding of the research system which can be applied to a diverse range of contexts; to this end, we designed a transversal methodology that aims to characterize the social science research system in general.

The analysis of the pilot studies highlighted a set of criteria considered relevant for an understanding of research systems. In line with the objectives of the Doing Research program and the initial approach, we proposed classifying them in a general analytical grid, composed of seven categories: 1) context and institutional framework, 2) supply actors, 3) demand actors, 4) human resources, 5) financial inputs, 6) production processes and 7) output and social utility. Criteria for each category are detailed in the document.

This provided a starting point for the panel of international experts, whose mission was to develop a robust and validated framework, based on this first batch of criteria. This resulted in clarifications to both the conceptual basis of the Doing Research program and the methodological choices that need to be made to move on to the next steps.

Finally, we present the common framework that has been collectively adopted:

- **Input**: funding, infrastructure, human capital, diversity of actors and data
- **Process**: policies and incentive structures, mentoring, peer review culture, research administration, leadership and management, networks and research communities, engagement, quality control and ethics
- **Output**: academic output, research-based policy outputs (policy notes, policy workshops) and human capital
- **Outcome**: how research is mainstreamed into society, and the use of research for policy design, policy implementation and policy evaluation
- **Context**: the cultural specificity, historical trajectories and political economy

Introduction

The Doing Research program is based on the conviction, central to GDN's vision, that quality scientific knowledge is key to effective development. It aims to support social sciences in developing countries, by providing an in-depth assessment of the research environment. The program started in April 2014 with a pilot phase, the first step of this ambitious initiative.

The expansion of communication channels and the growing complexity of our societies have drastically reshaped the knowledge market over the last three decades, providing a serious challenge to scientific production as the most relevant source of information in policymaking processes. Scientific knowledge is now in competition with other types of knowledge and is less 'visible' in contemporary debates; compared to information produced by other actors with a better command of technology and marketing. These elements, combined with others specific to developing countries – such as underinvestment in research, the lack of 'critical mass' and the domination of research agendas by international donors – provide the justification for the Doing Research program.

This document analyzes the implementation and results of seven research projects looking at the research environment in 11 countries. The conclusions were discussed by an international panel of experts during a workshop hosted by Sussex University in Brighton (May, 2016) and subsequently used by GDN to develop the conceptual and methodological basis of a tool to assess national social science research systems.

It is organized as follows. The first part reminds us of the basis and rationale of the Doing Research pilot phase. The second part describes the approaches and methodologies used in the studies, followed by the findings and their relevance for our analysis. In the third part, we present a description of how the research environment could be deconstructed and analyzed and the outcome of the subsequent review by a panel of international experts.

1. The Doing Research Pilot Phase

1.1 Assessing the Environment for Social Science Research in Developing Countries

The environment for undertaking socially-relevant and useful research in developing countries is most often characterized by both endogenous and exogenous factors that lead to low research capacity, a sub-standard quality of research, poor advice to governments, or unused and 'lost' knowledge. This may also affect the quality of information that shapes public opinion and policy discourse in these countries. A simple reflection, based on experience and discussions among researchers, reveals some factors that affect social science research and the way it is undertaken and disseminated. The classical elements of the 'research ecosystem' – which relate more to developed country contexts – include, *inter alia*, the quality of higher education institutes (HEIs), think-tanks or research institutes, and the linkages between them; Higher Education policies that support an independent academia, independent research agendas and research uptake; actors dedicated to translating results into policy inputs or material for influencing public opinion; and the ability of the research system to attract, nurture and retain academic talent.

Other factors that might determine the quality of the research ecosystem, relate to the more general institutional context. They encompass a broader range of issues which includes a) the political-economic context within which the research systems operate (the effective rule of law and freedom of expression); b) a regulatory and quality assurance framework for higher education and research that directly determines the quality of HEIs and their internal research environment; c) the quality of physical infrastructure and the agglomeration of institutions of a similar caliber, which determine the opportunities for networking, collaboration and interdisciplinary research; d) information dissemination mechanisms that facilitate publication and discussion; e) the nature and amount of funding that is available, which, to some extent, can determine the research agenda; and f) the accountability and incentive mechanisms through which researchers are linked to their institutions and which, in turn, are linked to funding agencies (whether public or private).

The literature on research environments confirms the importance of these factors, but it largely relates to developed countries and takes for granted elements that are often lacking in developing nations. While we find interesting case studies about specific developing countries or regions (see Gaillard and Waast (2000), for example), the absence of a clear set of defining properties that characterizes a high-quality and enabling research environment, makes it impossible to fully evaluate and understand them. Even in developed countries, often characterized by an effective enabling research environment, there is a lot of variance in the way research is produced and disseminated. Most importantly, the mode of research production in developed countries has evolved over time, often in tandem with evolutions in polity and changes in economic modes of production. Frequently, countries in the developing world have tried to emulate the different models of research production from developed countries in North America

or Europe, but, in most cases, the mode of knowledge production and dissemination has not followed technological progress and often remains a function of historical-political legacies. That said, there are many isolated islands of excellence in social science research in developing countries, despite the constraining factors that frequently hamper the quality of research production. At the organizational level, it seems that the prevailing research culture or informal relations and processes that define funding, promotions, peer reviews, professional networking capabilities and mentor-researcher relationships play an important role.

It is now widely accepted that research that accounts for local contexts can inform the discussions between the public sector, the private sector and civil society. A well-functioning research environment is therefore necessary for local researchers to develop and support healthy political reforms and governance systems in their country.

Building on the results of the Doing Research pilot phase, GDN will categorize the major concerns highlighted by our research teams. GDN will further tailor the approach along the way, by carrying out additional research on topics which require more in-depth attention. GDN will identify indicators and the necessary data to measure them. A comprehensive overview of the methodology will be developed, underpinning the rationale, tools and scope for the implementation of the Doing Research assessments. This process will ultimately lead to a working paper and a concept note, encompassing all the necessary aspects for operationalizing a pioneering benchmarking tool for research systems.

In doing so, GDN hopes to develop a comprehensive assessment of the performance of research systems in a large sample of countries. The pilot phase was used to develop specific objectives for the fully scaled-up Doing Research program. The following specific objectives have later been turned into activity components to implement the program:

SO1 To use a systematic methodology – the Doing Research Assessments – to analyze and assess the performance of national social science research systems.

SO2 To curate a global dataset to benchmark and compare research systems across countries and over time, to document global and regional trends in research production, diffusion and policy uptake.

SO3 To develop practical resources to create incentives and awareness, and support development actors in reforming research systems with improved policies and contextualized capacity building efforts.

The long-term aim is to translate the methodology into a flexible tool. This will facilitate a diversity of actions, from self-assessments to in-depth national assessments, allowing benchmarking and international ranking, potentially feeding global reports on social science research systems, and producing publicly available and customizable datasets. It could be used at all scales: in laboratories, faculties, departments, universities, research institutions and at the national level. The development of the methodology will need the support of high-level expertise for its use and dissemination. This could include, for example, a certification system, owned by GDN, which could also manage the supply of services for highly specialized or large-scale assessments.

2. Seven Studies for one Purpose

2.1 Approaches and Methodologies Used Across the Pilot Studies

The Doing Research program is a unique GDN initiative that aims to develop a comprehensive understanding of the factors influencing the organization of social science research, its quality, quantity and social relevance in developing countries. The project has supported seven multidisciplinary research teams to investigate the research environment across 11 developing countries.

These seven research teams have now completed their pilot studies, which this paper attempts to analyze. Each pilot study used different research methodologies. While this is one of the strengths of the Doing Research pilot phase, it greatly complicates the comparison of results. A short analysis of each pilot study is detailed below.

2.1.1 Indonesia

The Indonesian study distinguishes between macro, meso and micro levels to characterize the structural problems of doing research. Conducted by the Communication Research Center at the University of Indonesia (Puskakom UI), the study focuses on public universities. While this naturally limits the scope of the findings, it has the advantage of producing comparable data, contributing to the consistency of analysis. After an initial desk review, in-depth interviews were conducted with researchers and representatives of the institutions concerned. A comprehensive questionnaire also allowed the collection of more systematic data.

The methodological approach allows for a sectoral analysis, and the identification of explanatory factors and causal relationships. This is helped by the decision to focus on public universities. The analysis also looks at the influence of regional trends in the higher education market.

To contextualize the research, the Indonesian study takes a historical approach and examines the impact of changes in the national political regime on the university sector. Similarly, it analyzes the influence of the global neo-liberal agenda on the demand for research.

The outline of the research system at the country level is defined and presented from a macro perspective, following an effective map based on the literature, and enriched by the authors (Rakhmani et al. 2016, p.14). The research environment is divided into four sectors: state institutions, research bodies, academic associations and foreign aid agencies; higher education is deliberately positioned in the public sector. This is consistent with the central role of public universities in the study, but leaves out other knowledge producers such as NGOs, private universities and think-tanks.

Although the study mentions the importance of initiatives carried out by international cooperation actors promoting university empowerment processes, these initiatives are presented as 'timely interventions' and not considered as a specific element of non-academic research supply. In addition, it does not take into account the differences between public universities or reflect the geographical power differences between universities across the country. The study also does not account for the quality and availability of infrastructure and logistics facilities in universities.

In terms of the demand for research, the

study clearly shows the tensions between the autonomy of universities, on the one hand, and the benefits of a competitive system, on the other. While public funding is considered a vector of state authority, which prevents the development of critical thinking, openness to a competitive system, accompanied by a decrease in the direct demand from public institutions, increases the financial pressure on universities. The authors conclude that Indonesia was not given the means, in terms of resources and infrastructure, to support higher education reforms.

The analysis of how the research sector works is carried out through an investigation at the meso level, using data collected from education authorities, faculties and research departments. The study describes the different modes of research funding, including the incentives to publish, the different types of scholarships and the available support for developing research proposals. It also examines the terms of employment and career management. Different criteria, such as the correlation between wage levels and scientific productivity, are identified as key elements for understanding the working environment for researchers. The management of financial resources appears to be a key issue: "Professional management of funds is the ***sine qua non*** for institutional improvement" (ibid., p.27).

In terms of scientific production, the study stresses the importance of measuring the performance of researchers, while highlighting the limited impact it has on their career development. The data collected at the micro level covers the research supply, the profile of researchers (average age, level of qualifications, professional status, salary, etc.), their behavior and strategies, their career development (professional mobility, participation in collective research, diversification of activities, consulting versus research, etc.) and the characteristics of university jobs.

The Indonesian study also examines a number of factors related to the dissemination, use and impact of research results – in particular, communication channels with other academics, policymakers and the general public.

Main findings

Based on the empirical findings of this research, the authors argue that Indonesian state university reform is directed toward regional market demands. The macro policies implemented by the Indonesian Government have resulted in greater institutional autonomy in state universities, but the bureaucratic institutional model of state universities has prevented these reforms from being fully implemented. This leads to poor scholarship activities and low productivity in Indonesian state universities, with long-term consequences for critical thinking and weak links with policy development.

State policies promoting cross-sector collaboration have been implemented. While this has resulted in an increase in the allocation of research funding, these funds have not been fully absorbed because of the complex and multiple disbursement methods associated with the Ministry of Finance budgetary system. This has discouraged researchers from applying; credit-seeking academics appear to be the main beneficiaries of these funding schemes.

One important constraint on the development of research is the State Employment Agency promotion system: promotion is gained not through academic merit but by the accumulation of credit points. These points can be accumulated through teaching and seminars, with less emphasis on research and international

publication. Furthermore, greater autonomy among state universities has allowed them to increase their intake of students to cover running costs, resulting in less research work among state university academics. Consequently, there is a prevalence among Indonesian academics to stay within their own home institutions while pursuing higher degrees. This may have led to 'inbreeding' within state universities.

Significantly, the increase in state research funding has also increased the research uptake among universities in Java, with state universities in other regions lagging behind. One important finding of the study is the gap between universities in different parts of Indonesia.

Even among the more self-sufficient Javanese state universities, where governance is a dominant research theme, the links with policymaking are weak. The authors argue that the dominance of research on governance relates more to universities seeking income rather than a genuine institutional engagement between state universities and government policymaking. Consistently, basic academic research, which is considered by the authors as essential in preventing myopic policymaking, has been undermined by the absence of an effective peer culture.

2.1.2 Cambodia

The Cambodian study, conducted by the Cambodian Institute for Cooperation and Peace, adopted an approach committed to promoting research, based, in part, on the principles of 'action-research' – in this case an approach to understanding social phenomena through reflective observation of activities implemented by and for actors in a particular field. It complements the work done by the Indonesian team. It addresses issues in terms of the production of knowledge in general, not just by academics. This includes government agencies, ministries, think-tanks, NGOs and donors.

Unlike the Indonesian research, which focused solely on universities, the Cambodian study examines a wide range of research producers. Consequently, the sources of data are more diverse. The desk review is supplemented by in-depth interviews, a questionnaire survey and focus group discussions. It represents a large volume of data, rigorously organized and analyzed. However, the authors acknowledge some limitations to the methodology, related to the difficulty of forming a representative sample – for example, the varying levels of participation of representatives from different faculties (38 responses from one university and 5 from another).

The attention given to NGOs is interesting in what it tells us about which research topics are of interest in Cambodia, and how this therefore determines the 'supply' of social science research. However, one could question the relevance of considering NGOs at the same level as higher education institutions in the analysis of the research environment. Even if, in terms of production, the study demonstrates the role of NGOs and initiatives supported by international aid agencies, the institutional and symbolic differences in this type of research makes a comparison quite hazardous.

The rationale for this choice is found in the heart of the study (Sovachana et al. 2016, p. 60), which states that higher education institutions are an essential component of civil society and that their role includes developing the capacity of citizens to monitor public policies. While this is a valid point of view, it does not take into account the public function of higher education and research, which can (and maybe should) help design development strategies.

Main findings

The study presents a clear analysis of the Cambodian context and the institutional environment in which researchers work: Cambodia is a country in transition, where there is a generational gap between resigned directors, pessimistic about the social utility of research, on the one hand, and the more enthusiastic and dynamic younger generation that attaches great importance to research, on the other. The generational gap is often mentioned in the study, illustrating the importance of an historical perspective for understanding and characterizing a country's research environment. In the case of Cambodia, the tragedy of the Khmer Rouge explains the current social structure and is essential for understanding the different views of the current elites and the younger generations.

The recent history of the country also explains the relative distrust between researchers and the limited level of internal collaboration; compared to the highly dynamic nature of international collaborations. The context is much more favorable to international cooperation than to local collaboration.

In Cambodia, international donors create the demand for most of the research. The significant influence of donors creates concern for independence and diversity. The study highlights the adverse effects related to short-termism and consulting, which prevents the consolidation of the sector, including the development of enduring and competent human resources. The priorities, in terms of themes and disciplines, for public authorities and donors are also very different for those of students and researchers – the former are much more oriented toward agriculture and business than toward social issues and entrepreneurship.

The tenuous link between research and policy is identified as one of the factors contributing to the lack of importance given to academic researchers; as opposed to NGOs, donors and think-tanks, who are more successful in influencing public policy. Furthermore, the study clearly shows that the private sector is completely disconnected from the research sector, except in the case of Humanities, Arts and Social Sciences (HSS).

The Cambodian study highlights the dynamism and the desire to work of young leaders in research institutions, be they academic or not; and a level of a frustration with local bureaucracy. Gender inequalities are also highlighted as counter-productive.

In terms of the supply side, there is strong collaboration between higher education institutions and NGOs. No doubt there is widespread 'institutional isomorphism', which facilitates collaboration between structures with the same sources of funding and whose leaders have similar profiles and experiences. It is not uncommon to see people moving from a university to an NGO, or taking on two roles at the same time.

The description of research practices reveals the general lack of structuring of research in higher education institutions (the vast majority of universities do not have a formally defined research policy), as well as the level of heterogeneity. Consequently, an understanding of the research environment in Cambodia requires a detailed analysis of individual institutions.

For NGOs, heterogeneity is probably even more important. This highlights the challenges for the integration of knowledge producers, each with their own characteristics, priorities and objectives. The report also stresses that some NGOs have qualified staff and produce scientifically valid and acknowledged work, which is sometimes

the only source of valuable information on sensitive subjects, such as democratic governance and elections.

The action-research component of the project carried out by the Cambodian team showed how training activities can become a real evolutionary process and have, in themselves, significant effects on the knowledge market. The involvement of students, in addition to monitoring and mentoring efforts, have not only produced original data but also stimulated research actors and knowledge producers, and thus contributed to a virtuous circle of output and quality data.

The study also highlights the importance of funding for the operation of research laboratories. The financing of higher education, particularly access to grants at master's level, determines whether students continue their studies or leave higher education.

The study reveals the lack of clarity in the role of the Ministry of Education Youth and Sport (MoEYS); it only coordinates the allocation of financial resources and does not link research findings and publications to the development of public policies. The negative effect of external funding on the financial commitment of state authorities is also apparent: the MoEYS tends to encourage researchers to obtain resources from international aid agencies rather than develop a national support system for research, however modest.

Undertaking research is complicated in Cambodia, particularly due to the limited opportunities and red tape often associated with research projects. Limited access to data and scientific journals – in addition to the tendency to give more legitimacy to international consultants rather than to national academics – hinders the development of research in universities.

The study emphasizes a key point for our project: a lack of financial resources is not necessarily the main issue. "Although money is not sufficient, increasing funding alone will not solve the problem," (ibid., p. 83). It is only by acting on the system as a whole that we can hope to improve the production and use of knowledge for development. Hence, there is a need to fully understand, and to properly characterize, the research environment.

In terms of knowledge production and use, the study reveals the constraints related to the use of English; the difficulties in undertaking research on politically-sensitive issues, particularly the collection of data for which official permits are necessary; methodological weaknesses due to the lack of access to bibliographic databases and valid statistics; and, not least, the lack of access to libraries and the internet. The limited number of local institutional collaborations and collective practices (peer groups) also adversely affects the quality of knowledge production.

The study found that the limited dissemination of research products by universities can be explained by a fear of displeasing the authorities; a form of self-censorship, justified or not, that makes it much easier to publish and share results through international media (academic or otherwise) than through national channels. Results from projects implemented by NGOs or through development agencies, on the other hand, are more widely disseminated. While this collaboration between HEI researchers and NGOs often results in better communication and, consequently, has a greater impact on policies, it also contributes to devaluing the research produced by universities and to diverting the most dynamic researchers. On the whole, it seems that knowledge produced by universities is

not valued by national institutions. The most common method of disseminating research results seems to be through workshops and conferences, usually under the framework of projects financed by international aid agencies.

Overall, the study finds a tenuous link between the knowledge produced by research and the definition of public policies: "Government policy is not produced through research" (ibid., p.117 of the report). This is explained both by the lack of interest from administrators and politicians in the knowledge generated by research, and by the lack of access to this knowledge. The study recognizes the need to improve the way that research knowledge is presented, to facilitate its dissemination and use.

2.1.3 Niger

The Nigerien study, conducted by the think-tank, Economie Politique et Gouvernance Autonome, adopts an historical approach to examine how current reforms are colored by practices and mechanisms inherited from the crisis of the 1990s, and the subsequent inability to absorb the changing nature of demand for research. Methodologically, the study has a very specific focus and has the great merit of disproving its central hypothesis. Indeed, analysis of the data collected showed that the structural and behavioral problems of social science research in Niger, originating in the crisis of the 1990s, have little effect on the ongoing reform process. Although initially pessimistic, the narrative becomes more positive, while also highlighting the challenges facing the research sector.

The study, which is dogged by methodological difficulties, reminds us that the characteristics of the research environment are not only to be found in a detailed analysis of the operation of the sector or the production of knowledge, but also, quite simply, in the basic conditions (reliable supply of electricity, access to the internet, dedicated work spaces, etc.) for implementing research activities, particularly in sensitive contexts.

Divided into three phases, the study examines research supply and demand, as well as how researchers are trained and the institutional framework. From in-depth interviews, supplemented by data from questionnaires and a survey of students, the authors were able to characterize current research practices in Niger, and present them in light of events and constraints imposed by the country's political and economic history. There were real difficulties in collecting information from certain categories of actors, but paradoxically, this was meaningful in terms of what it revealed: the lack of representation of women and the level of involvement of policymakers, for instance.

In terms of the demand side, the study focuses on public institutions, international organizations and NGOs. There was an almost complete absence of data from in-depth interviews; only the questionnaires were effective. The data collected relates overwhelmingly to international organizations and excludes public services and private companies. While revealing the passivity of national research leaders, the conclusions of the study are too biased to be valid. The authors see this as a consequence of the transformation of the knowledge market, dating from the 1990s, when demand from international development institutions gradually replaced demand from public institutions.

The demand analysis reveals the dominance of international organizations but, unlike the Cambodian study, it does not raise questions related to the independence of research or the influence of international

priorities on the national agenda. One reason for this may be found in the type of supply. This is divided into three areas: academic research, produced by universities and research institutions; public research, conducted directly by state services; and private research, produced by consultants and consulting firms. The recent changes in the sector have led to a sharp decline in public research and the development of a competitive market for research, favored by donors. University research, meanwhile, seems to have maintained its level from before the crisis. The study shows that the absence of market regulation makes an analysis of private research extremely difficult, especially since the categories are often blurred: many university professors do consultancy work under their own name, without being affiliated to their university; and they can also be co-opted by ministries for medium or long-term projects.

Main findings

The research environment is characterized as being in a transitional phase – albeit, for different reasons than the Cambodian study – particularly because of the dynamic supply of research, illustrated by the reintegration of Niger into CAMES *(Conseil Africain et Malgache pour l'Enseignement Supérieur)* in 2003, the creation of a public funding mechanism for universities and the establishment of the first doctoral schools. The importance of international cooperation is also identified by the authors as a source of dynamism, reflected in the knowledge produced by NGOs. Unfortunately, the investigation did not collect specific data on these actors. It is therefore difficult to draw conclusions similar to those of the Cambodian study. This also raises the question of the place of basic academic research, which is almost nonexistent in the demand emanating from international institutions. Finally, it reveals the glaring lack of a national research strategy, a vacuum occupied, for better or for worse, by international organizations.

The difficult balance between supply and demand raises the question of the balance between knowledge produced by the public sector and that produced by the private sector. The fact that the demand for research comes mostly from the private sector and that the public supply is of little value, has significant implications: Does it mean that all the knowledge produced in Niger originates from private initiatives? What does this mean for strategic knowledge – related to national security, for example? What are the implications for private sector governance, regulation and quality assurance?

In terms of the organization of research practice, the study does not reveal anything new; although it emphasizes the need for transparent rules and team spirit as key elements for high-quality research. The lack of infrastructure and access to information resources is also raised. The quality of research training is not considered satisfactory, despite the recent establishment of provincial universities, which have the potential to spawn important initiatives in this regard.

The study also notes that the dissemination of research results is extremely limited – to a few initiatives such as weekly seminars organized by the Laboratory of Studies and Research on Social Dynamics and Local Development (LASDEL), or the 'days of research' organized by the University of Niamey – and is often delayed by a lack of funding.

On the whole, the study advocates the state as the main actor, as a resource aggregator, trendsetter and a reliable source of direct public demand; and promotes a more

structured response to 'indirect demand'. Funds supporting career-advancing research could be more productively spent if they were used for useful projects – those that respond to public concerns – while also promoting young scholars and publicizing research results beyond academic journals/ venues.

It also concludes that it is necessary to invest in 'social' training, since the perception that social science research is of little value is largely because researchers seldom endeavor to demonstrate its usefulness. In Niger, social scientists are trained to think that interaction with society risks 'contaminating' their results.

Finally, the study stresses the need for research organizations to establish relationships with a variety of demand sectors, which means that they must enhance their own versatility or capacity as research producers. Establishing such interactive relations with demand sectors is one of the factors contributing to the establishment of a productive supply and demand relationship, which is, ultimately, the central engine driving improvements in any research environment.

2.1.4 Peru, Bolivia and Paraguay

This collaborative study, by the Grupo de Análisis para el Desarrollo (Peru), the Centro de Análisis y Difusión de la Economía Paraguaya (Paraguay) and the Fundación ARU (Bolivia), is particularly useful for understanding the social science research environment. It differs from the other pilot studies in its successful comparative approach, made possible by taking a step back from the main area of study and proposing a more generic reading of the characteristics of the research environment.

The identification and classification of research practices in the three countries are used to determine the factors which influence the research environment. It is through a systemic approach that the sector is envisaged, defined according to four elements of research: 1) research funding; 2) actors involved in the production, use and circulation of knowledge; 3) scientific capital and the characteristics of researchers; and 4) types of output. The conceptual grid used in the three countries is illustrative of a truly cross-cutting approach that fits well with the objectives of the Doing Research program (Balarin et al. 2016, pp. 19-20).

The proposed analysis does not examine what social science research means in modern societies – characterized by the new complexity of globalization and Information and Communication Technology. It simply acknowledges that knowledge producers are also to be found outside the academic world and that one of the key properties of social sciences is to reveal what is not explicit, in a way that facilitates decision-making. It then emphasizes the applied nature of human and social sciences, which again raises the question of the place of basic academic research.

The study highlights the importance of the institutional context to the understanding of the research environment: the political context, particularly in relation to the research funding system, and the existence of a robust public body supporting research, are key elements for the research environment.

As in other studies, an understanding of the context includes a reflection on the historical antecedents of research systems in each country and the influence of political ideologies for the establishment of policies supporting public research; the ideological commitment to 'developmentalism' waned in the countries studied, which would explain

the subsequent lack of public funding.

The structure of demand is similar to that found in the other pilot studies. Alongside public institutions and international aid agencies, the study added 'organized civil society', representing a diversity of concerns and interests (businesses, unions, associations, NGOs, etc.).

The three countries have experienced a similar trend: an increasing demand for specialized research from international organizations, particularly in terms of the themes, methodology and the justifications for public policies. The authors question the extent to which the results of this research are credible and whether the lack of a national research strategy has led to the adoption, by default, of agendas emanating from international organizations.

In terms of research provision, universities occupy a prominent position and, using an approach similar to that of their colleagues involved in the other pilot studies, the authors analyze the relationship between universities and the relevant ministries or other regulating institutions. The level of autonomy reveals a different issue: too much independence from the state can result in a lack of pressure to produce knowledge. There is an interesting parallel between the three universities established in Bolivia (with the aim of democratizing knowledge) and those created, at about the same time and for the same purpose, in Niger.

Public research centers are also part of the historical development of knowledge production. The comparison of how these structures work in the three countries highlights the importance of individuals to the dynamism of these institutions, and illustrates how institutional structures, accompanied by professional and career development act as a counterweight to the influence of individuals.

The large diversity of research includes supply from a multitude of think-tanks, generally working as consulting firms, often associated with 'soft activism'. NGOs supported by international development agencies and private research centers produce the knowledge necessary for technocratic decision-making. While these organizations rarely address the structural problems facing societies, the authors acknowledge that they do reflect innovative ideas on development.

The Latin American study identifies two areas for understanding research systems: the first relates to the production of knowledge itself and the second refers to the institutional research environment. The latter is part of what we call research governance, understood as the rules and mechanisms that govern how collective decisions are taken; this is closely linked to scientific culture and history. Some public mechanisms supporting research will include human and social sciences, as in Paraguay, or exclude them, as in Peru and Bolivia. This is, of course, highly relevant to the objectives of the Doing Research project.

The fragmentation of research strategies is common in all three countries and has negative implications for the development of a scientific community, which, in turn, affects the structure of research policies.

Finally, as in the other pilot studies, evaluating scientific production and using biometric indicators are not necessarily the most useful methods for assessing the research environment. Conversely, quality assurance and peer evaluations seem to be much more efficient ways of ensuring the value of the knowledge produced.

Main findings

This pilot study shows the lack of importance given to social sciences in Bolivia, Paraguay and Peru in science and technology policies. It reveals the predominance of an instrumental vision of HSS research, especially on the part of the state, where critical and relatively independent social science is hard to find.

The general tendency to emphasize the need for information and evidence for decision-making and public policy evaluation, results, in some of the studied countries, in an increasing fragmentation of research agendas, weakening critical perspectives. This is a reflection of the research environment, characterized by the development of an instrumental-technocratic model of social research production where HSS research is at the service of decision-makers, to whom it provides information and evidence.

The three countries suffer from a lack of programmatic funding and of shared quality standards. They are also characterized by the absence of public funding for independent social research, which does not focus exclusively on immediate relevance but rather contributes to a larger theoretical or conceptual body of knowledge. The lack of understanding of why and for what purposes social science research is produced is a direct result of the lack of public funding.

2.1.5 Cameroon and Côte d'Ivoire

The study conducted in Cameroon and Ivory Coast by the Centre d'Etude et de Recherche en Economie et Gestion from the University of Yaounde and the Cellule d'Analyse de Politiques Economiques du Cires, focuses on the research environment in two major African francophone countries. The initial comparative study was divided, for practical reasons, into two separate studies following the same approach, centered on scientific production. The research environment is analyzed through scientific productivity, with the ultimate goal of defining an indicator measuring the ease of doing research in social sciences – the Index for Doing Research in Social Sciences (IDRISS).

Aware of the limits of bibliometric indicators, the authors favor a measure of researchers' productivity based on the evaluation of the quality of four elements (inputs into scientific production): human resources, finance, material and information. The influence of these resources on scientific productivity is analyzed according to the nature of research, the institutions that fund or conduct research, and human and financial resources.

Based on both a literature review and primary data collection, a microeconomic analysis was conducted using a large number of variables for institutions and individuals. It assumes that the productivity of research is a direct reflection of the institutional and regulatory framework, as well as research infrastructures. It is an interesting study and offers new perspectives on the overall goal of the Doing Research program, but the characterization of the environment is to be found more in the observed criteria than in the results of the econometric analysis. The productivity approach also considerably limits the analysis of the demand side. In contrast, the supply analysis is detailed, from both institutional and individual perspectives.

Social science research is conducted through public and private universities, as well as research centers and institutes somewhat independent from universities. The study does not take into account other knowledge producers, which is definitely a limit, but this is clearly outlined in the scope of the survey. Moreover, consistent with their microeconomic approach, the two

studies focus on the scientific production of researchers. This is determined, on one hand, by individual characteristics (personal skills, academic backgrounds, personal environment) and, on the other hand, by institutional characteristics (the nature of affiliated institutions, financial institutions, equipment and infrastructure, organized academic activities, cooperation and partnerships, and incentives).

The research supply is analyzed from an institutional point of view, using university status and the male/female ratio. The individual characteristics studied are gender, age group, marital status, where staff obtained their PhD and the institution's ranking.

Main findings

The econometric analysis reveals that marital status, where researchers obtained their PhD and the institution's ranking have a direct influence on the production of research; it also appears, as in other studies, that the notion of 'critical mass' is an essential characteristic of the research environment. The study notes that using bibliometric indicators – commonly used in the literature – undervalues scientific production. The contextualization of these instruments is therefore very important in Cameroon and Côte d'Ivoire.

It is in regards to the operation of research that the studies are the most rewarding. Indeed, from the point of view of researchers, the analysis highlights the importance of physical infrastructure. The study shows that the research environment, far from supporting the production of knowledge, can be an important hindrance. This includes a lack of infrastructure, financial resources, incentives and even institutional support. For instance, having an office dedicated to research, conference rooms or appropriate hardware, undoubtedly influences the productivity and quality of research.

Many factors determine the productivity of researchers, both individual and institutional. Important elements include capacity building activities for research institutions (such as training courses and seminars) and the variety of incentives (such as opportunities for publication, participation in seminars, assistance in setting up projects, etc.). Access to documentation either in a library or through the internet are, as in other studies, important factors determining the quality of the research environment. Gender is a major determinant; women tend to have lower productivity than men. The ranking of researchers is also decisive.

Finally, the importance of national, regional and international influence is addressed through the concept of networking, which reflects the level of collaboration between research institutions themselves and with other institutions likely to use or develop research in social sciences. Business, technical and financial partners, international organizations, NGOs and civil society in general, are important collaborators.

On the whole, the results of these two studies show that it is possible to define an index for measuring the quality of the social science research environment. Be that as it may, this was done based on assumptions and methodological choices that relativize the robustness of the index; but it does open the way for the IDRISS.

1.2.6 India

The authors of the India study, from Jawaharlal Nehru University, argue that a production function – directly relating outputs to inputs – is not applicable to the study of research environments and the production of research. The reason for

this is the complex relationships between funding and other inputs, research processes, accountability and policy impact (Chattopadhyay et al. 2016, p.18).

The social science research supply in India comes from five main categories of site: 1) university departments (both central and state), under the governance of the University Grants Commission (UGC); 2) autonomous research institutes undertaking social science research; 3) special institutes set up by government ministries; 4) agricultural universities, technology and management institutes and; 5) the non-governmental sector undertaking independent research. The authors did not cover the latter, mainly because of the "paucity of availability of information from reliable sources of such entities across the length and breadth of the country" (ibid., p.7). This means that research conducted by think-tanks undertaking policy relevant research, advocacy and action-oriented research organizations, and policy research groups of large multinational firms, is not taken into account.

The analysis of the research environment is carried out at three different levels (similar to the Indonesian study):

- Macro: state-level analysis of policy, funding, regulatory environment, sites for the production of research
- Institutional: processes, main actors, governance, training and promotion, funding, academic leadership, integrity
- Individual: incentives, motivation and career vision, networking and collaboration with peers, research training and education

This approach is complemented by an analysis of research outputs and the social utility of research. In terms of methodology, the study uses research instruments designed for four categories of respondents:

1. **Research Students/Scholars:** Students pursuing Master of Philosophy (M.Phil) and Doctoral Degrees (PhDs) in social sciences were given a semi-structured questionnaire divided into five sections: personal details, training and capabilities, facilities, publications and socioeconomic background. 130 responses were received.

2. **Teaching Faculties:** As social science faculty members in universities do both teaching and research, they constitute a distinct category. They were administered with a semi-structured questionnaire divided into seven sections. The issues covered in the first three sections are similar to the ones for research students (above). There were additional sections on sponsored research and collaborations.

3. **Researchers:** This category refers to researchers who are not engaged in teaching. These scholars, trained in social sciences, generally work for think-tanks, NGOs and other agencies in the development sector. They were also given a semi-structured questionnaire, divided into seven sections.

4. **Key Informants:** This refers to people in leadership positions in universities, think-tanks and NGOs. The authors conducted interviews and focus group discussions with key informants.

The team carried out a mapping exercise of the major institutions and grouped them in thematic and regional clusters; the sampling method, however, lacks clarity. The authors also note the trade-off between the length and comprehensiveness of the questionnaire (6-8 pages) and the response rate. Two central universities located in the north and

the south, and two think-tanks in the north and eastern part of India were also selected for a more in-depth investigation in the form of case studies. These are very detailed but detract somewhat from the overall analysis.

The authors also attempted to envisage the different ways funding mechanisms would affect the accountability of universities and think-tanks, and the impact this would have on determining the social utility of research.

Main findings

The Indian study highlights the huge diversity characterizing the institutional framework of social science research. Apparently, there is no overarching regulatory framework for social science research in India, but there are some specific policy interventions related to scholarships, the awarding of degrees and the evaluation of faculties (research publications, projects, training, presentations, etc.).

The study also reveals the increasing role of the private sector in the field. It notes a significant increase in the number of universities in the country, particularly private ones – from 132 in 1980 to 656 in 2012-13. At the same time, however, there has been an apparent decline in research productivity in universities, both because of the increase in teaching loads and the changes in the vision for universities – which are now seen largely as training centers for skilled manpower, including researchers, rather than centers for research production per se. These findings might also be a consequence of omitting the non-governmental entities mentioned above.

The authors also point out the huge disparities in performance between institutions in different parts of the country, and between the major metropolises and the smaller cities; and the problems of aggregating data at the national level in a large, decentralized country like India (and Bangladesh). This was also noted in the Indonesia study (Java versus the rest of the country).

Demand for research inputs comes from both central and state governments. There is an increased tendency for consultation on policies and web-based participation in their design. However, despite these apparent new trends, the degree of independence of research and the freedom to contradict current policies seems limited. According to the authors, public funding gives autonomy to researchers in government-funded universities but it does not directly connect social science research with policy actors. The influence over policymaking in this case is rather indirect and implicit; the funding agencies monitor research processes and use research output to inform policymaking processes.

The production of research is characterized by governance problems in state universities and commercialization in private ones. Funding comes mainly from the UGC and the Indian Council for Social Science Research (ICSSR). Social science research is largely under-funded – the ICSSR, for instance, receives only a small share of overall funding for research in the country.

The analysis at the institutional level is very detailed, mainly based on case studies of selected universities and think-tanks. It is difficult to draw overall conclusions and identify key features. There seems to be a general dissatisfaction with the availability of resources and working spaces. However, overall, researchers in universities feel that there is substantial autonomy and a thriving research culture within the institutions, where mentors get credit for their role. For think-tanks, it seems that a lack of leadership coupled with poor infrastructure hinders their performance.

Looking at outputs, the study reveals that the quality of the research produced is poor, according to ranking and national assessments, and relates this to the poor quality of training/instruction. Publication rates are growing according to SCOPUS[1] data, but slower than in China, Brazil or Indonesia, for instance. There is a large share of international research collaborations and joint publication with foreign authors. In 2015, this made up almost 35 percent of total social science publications in India, according to SCOPUS.

1.2.7 Bangladesh

The Bangladesh study, implemented by *Unnayan Bhabna,* follows a similar approach to the India one, except in the definition of the macro level, which is considered as anything external to academia. It is more complete in terms of coverage than most others. It includes a public university and a public research center in a different university, a public and a private think-tank and the research division of a reputed NGO – but just one of each and without a clear rationale for choosing these over others. The typology is clear though.

The methodology, similar to that used in the India study, includes a desk review, loosely structured interviews with key informants (in government agencies, public universities, private universities, think-tanks, NGOs), a systematic survey (88 responses) and focus group discussions.

The analysis has an interesting emphasis on 'agency' – what drives individual researchers – as well as on 'institutional culture' and how this affects how different universities within the same context (regulatory framework, funding environment) perform very differently in terms of research productivity.

1 SCOPUS is a bibliographic database containing abstracts and citations for peer-reviewed academic literature

Some are motivated by prestige or visibility, for example. The connection to funding is again rather prominent in this study.

The authors recognize that a classic production function linking inputs to outputs cannot be applied to the research environment without taking into account external variables such as institutional culture – this is one of the 'intervening variables', not formally incorporated into the model elaborated by the authors. Other key elements are identified as 'enabling research productions: competent colleagues (rigorous recruitment processes); well-equipped work-stations; a culture of appreciation and of constructive criticism; and thought-provoking discussions or events.

The study also includes a detailed case study of the Bangladesh Social Science Research Council. The overall organization of the sector and the major regulatory and funding agencies are similar to those in India.

Overall, there is a very detailed mapping of how these selected organizations function, their sources of funding, research output and international collaborations.

The survey was used mainly to describe individual researcher behavior and characteristics, and perceptions of their institutional environment as well as their role in the policy domain. Perhaps the authors could have tried to aggregate the data, but the diversity between different types of organizations makes it difficult to paint an overall picture of the sector.

Main findings

The key contribution of the study relates to the diversity of the types of organizations covered (see above) and the comparative analysis between them in terms of funding, international exposure and networking, autonomy, and disciplinary concentration

or diversity. Other interesting points are highlighted in the discussion of the policy connections (Noor 2016, pp. 98-102), strengthening the conviction that the Doing Research program responds to the urgent need to clarify our understanding of the environment for social science research.

The study stresses how the overall research environment is not conducive for social science researchers in public universities. Nevertheless, the results of the study prove that, even if universities are resource poor, the overall environment still offers a degree of freedom to faculty members. On the contrary, and quite surprisingly, the authors note that researchers from non-governmental research entities enjoy relatively less freedom due to strict working hours, and other rules and regulations.

Here again, we find the tendency among researchers from public universities to take on consultancy work or to teach students in private universities, due to the lack of adequate support systems (in all stages of the research cycle, from idea formulation to publication/dissemination) in public universities.

The findings show that civil society think-tanks, such as the Bangladesh Institute of Development Studies or the Centre for Policy Dialogue, are capable of managing big research projects and mobilizing very large amounts of money, compared to other research organizations included in the study.

1.2.8 South Africa

The study, conducted by the University of KwaZulu-Natal in Durban, South Africa, tackles the overarching research question: how can we think differently about the evaluation of the contribution of social sciences to South African research productivity, policy and social development, beyond the conventional quantitative discourses of research performance measurement? Through this study, the authors aimed to achieve a number of objectives: to contribute to the understanding of the social science research environment in developing countries; to help catalyze new thinking about how to measure research productivity; to generate new data and analysis for South African, African and other regional stakeholders; and develop a framework of indicators for assessing the inter-relations between the research environment and research productivity, quality and social utility (or uptake) in South Africa.

The team adopted a mixed methods approach, based on a political economy analysis of the institutional set-up and the power dimensions characterizing the research environment, combined with a quantitative analysis of bibliometric data. They also mapped the research environment, highlighting the major actors. The political economy approach is interesting, to the extent that it shows the contestation and contradictions inherent to a democratic debate and because it helps in analyzing the social utility of social science research. The team also highlight persistent racial and gender biases in the research environment, which most other teams did not look at.

The team conducted a survey of research faculties and conducted in-depths interviews with deans and other relevant decision-makers in the higher education and research sector. They focused largely on universities, which is one of the limitations of the study.

The participants were selected for the in-depth, face-to-face, key informant interviews based on their positions in universities. Efforts were made to ensure that the following constituencies were represented: universities; research councils / institutes / centers; government authorities; consulting

firms; and social media commentators/public intellectuals. A structured questionnaire was also used to collect primarily quantitative data using closed-ended and 'Likert-type' questions (used for scaling responses); 107 completed surveys were analyzed. A bibliometric analysis of publications produced by South African authors during the period 1966 to 2014 was also undertaken. This was accessed from the Web of Science database.

On the whole, the study tends to be overly descriptive rather than analytic; it does not attempt to link the information and data from the different sources and methodological approaches. Consequently, it constitutes an extremely rich source of primary data, but does not generally provide any critical analysis.

Main findings

The institutional framework of social science in South Africa appears to be a highly-regulated system. The evolution of a critical social sciences research tradition in South Africa parallels the struggle against colonial and apartheid rule, where data and research helped to lay the foundation for key post-apartheid institutions.

The university evaluation system does not reward policy relevant research but, instead, encourages publications in journals and chapters/books. This creates a perverse incentive seen in other studies: most researchers undertake social science research primarily to advance their careers and not to contribute to knowledge or development. There also seems to be a decidedly inward focus (rather than a focus on issues of regional or global importance).

In terms of supply, it appears that a wide range of institutions produce social science research in South Africa: units or centers in universities; governmental or parastatal agencies; non-governmental organizations; and collaborative arrangements such as research networks between different local, regional and international actors, including actors in other African developing countries.

Interesting findings relate to the perceived key challenges in South Africa, identified through the questionnaire:

- Policies as well as national funding formula are biased toward science, engineering and technology
- A lack of support for early career social science researchers
- Poor structures, systems and governance for social science organizations
- Limited opportunities for career development, including access to mentors and training opportunities
- Promotion and performance management criteria are biased against the social sciences
- Too few job opportunities (in universities, government, industry, etc.) for social scientists
- The South African Government is not supportive of social science research
- Salaries for social scientists are below the market rate
- A lack of ethical standards for research involving human subjects in the social sciences

In terms of outputs, the study focuses on publication records. For this purpose, bibliographic information was gathered from the Web of Science database. As it was not possible to analyze all of the 23,881 publications produced between 1966 and 2014, a sample of publications was selected for in-depth analysis; which concluded that

social science publications represent about 16 percent of all publications produced by South African scholars during this period. Moreover, it seems that publications have increased considerably, especially post-1990, particularly joint publications.

The findings indicate that research productivity among social scientists is increasing with growing funding for research as well as investments in building research capacity. However, senior and established social scientists were of the opinion that the social sciences are methodologically and conceptually / theoretically stunted and have not developed appropriate approaches to engage current societal challenges. There was a strong feeling that the social sciences have failed to provide the critical space to sufficiently engage with socioeconomic issues, particularly in relation to the higher education sector (there were violent student protests in South Africa at the time the study was conducted). This resonates with findings from India and Latin America. There was also a paucity of funding for 'blue-sky' research in the social sciences; most funding was earmarked for small applied studies, which could be a reason for the lack of contemporary theoretical development.

This more critical analysis of the purpose and role of social sciences in society is perhaps the greatest contribution of the study. It goes beyond merely bemoaning the marginalization or depreciation of social sciences (in favor of the natural or hard sciences) – a common feature of most of the other studies.

Numerous challenges remain, which include limited funding opportunities (more prominent for certain disciplines and thematic areas); biases in the perceived value of research and contributions (including those in relation to performance management and promotions) toward the natural and physical sciences, as well as specific thematic areas; workload distribution (especially at universities); and a lack of mentoring and network support for social scientists. Funding per se does not seem to be as big of a constraint in South Africa as in some of the other countries in the pilot program. However, the ability to access funding varies across individuals, disciplines and institutions.

2.2 Lessons from the Pilots

2.2.1 Different Methodologies for Different Purposes

The seven pilot projects have followed different approaches and methodologies which are more or less relevant to our objective. Choices about dominant disciplines (history, political economy, sociology and microeconomics), make cross-comparisons difficult. However, an **historical approach** is routinely used to understand the context. It provides no relevant indicators of the quality of the current research environment in a specific context but is necessary for minimizing or increasing the weight of certain criteria. Only one study (Niger) is based on a dominant historical approach. While it is interesting, it reveals little about the general characteristics of the research environment. From a purely disciplinary point of view, the lessons from this synthesis relate to the complementarity of different disciplines and, therefore, the **importance of adopting an interdisciplinary approach**.

From a methodological point of view, the biggest challenge for the research teams has been to center their analysis in the national space, rather than focusing solely on the professional social science sector.

The object of study is the research system, not the social sciences in academia. Data on the social science sector provides a useful justification for our project and it is certainly interesting to examine the perception of social science researchers of their industry, but is not relevant to our goal and, in the absence of large-scale quantitative surveys, suffers from methodological weaknesses. For example, while it is interesting to know the number of female social science researchers in a given country, it is not directly useful for building a framework for understanding the social science research system. What is much more useful is to understand why the authors considered gender as relevant to the characterization of their research environment. This will help identify some common points of attention (which may include gender equity as a relevant indicator).

The pilot studies all began with a desk review, complemented by in-depth interviews and, in some cases, by focus groups, systematic surveys or bibliometric analyses.

Bibliometric analysis is interesting if it can measure the weight and position of social sciences – for example, measuring international exposure via the rate of co-publication and evaluating the geographic impact of research (local, regional, continental or global) is an important element of the research environment. It is of less interest if it is used to analyze social sciences per se.

Moreover, because of the limitations of qualitative methods, particularly in terms of establishing representative samples, almost all the pilot studies decided to complement them with quantitative methods, usually questionnaires.

Even if the choice of methodology is not important for understanding the research environment, the decisions about the scope of the research places borders on the research environment. In some cases, the research concentrates on, and is limited to, the study of universities. In others, it includes a variety of knowledge producers, which naturally makes the methodology more complicated.

Figure 1: Review of methods used in the pilot studies

	Desk/ literature review	In-depth interviews	Focus groups	Quantitative Survey	Bibliometric analysis	Econometric analysis
South Africa	X	X		X	X	
Bangladesh / India	X	X	X	X		
Niger	X	X		X		
Indonesia	X	X		X		
Peru / Bolivia / Paraguay	X	X				
Cameroon / Ivory Coast	X			X	X	X
Cambodia	X	X	X	X		

How do we define the scope of knowledge producers?

Knowledge in its broadest sense includes competencies and skills. It is the result of experience and of research, which comes from a natural curiosity to learn more about the world. In this more general sense, research is undertaken by a range of actors. On the other hand, research is also a professional sector, a competitive field that follows specific operating rules related to its environment. GDN encourages the production of knowledge through its support to social science research. However, this raises a fundamental question:

Does a full understanding of the research environment imply the inclusion of non-academic knowledge producers (NGOs, think-tanks, other research producers) or is it acceptable to focus solely on the academic world (universities and research centers)?

Another element, not explicit but central to the background of the reports, and which differentiates the pilot projects, concerns the definition of social sciences and the range of disciplines they cover. This question is not always clearly addressed in the reports (if at all) but it appears that some disciplines such as management or marketing (taught in MBAs in particular) may be included or excluded. **The spectrum covered by the social sciences** will therefore have to be defined to make a comparative approach possible.

It is also clear that any effort to characterize the research environment should include consideration of a country's history. Pilot projects show that particular mechanisms, social dynamics, habits or practices that characterize the research sector only make sense if past events are taken into account. Consequently, it is **fundamental to incorporate a minimum of historical context analysis** in any attempt to evaluate the research environment.

Methodological choices, particularly those defining the scope of the research, are also guided by how the authors consider the role and place of research vis-à-vis the management and processing of public policy. Researchers sometimes adopt a very ideological or political stance, which reveal their own cultural bias and references. For example, the decision to include NGOs, private firms or companies in the group of knowledge producers, in addition to public institutions such as universities or research centers, raises fundamental questions about the function of public research and its strategic value for a country. It also raises the question of the place of basic academic research.

2.2.2 A Professional Activity Integrated Into a Specific Institutional Framework

The production of knowledge is the result of an identifiable process that follows a widely-accepted, logical, scientific approach. Nevertheless, it responds, like any professional activity, to the requirements of a specific regulatory framework.

All the authors of the pilot studies considered the institutional and regulatory framework of their country in order to identify the elements affecting research activities. They take into account, not only the characteristics of research institutions, but also those of supervising ministries and sometimes of international organizations. It is clear that **the**

practice of research is governed by rules set up by different authorities and at different scales, from local to global. The definition of these rules is subject to competition between a range of interrelated actors. This is the reason why, although not always explicit, all of the research teams adopted a systemic approach to define and analyze the research environment.

Is studying the 'research system' the best approach?

Studying the research environment in social sciences by using the concept of a 'research system' is useful for the diversity that it encompasses. A system consists of a set of actors, sometimes heterogeneous, interacting with each other according to certain rules or principles, corresponding to relationships of various kinds (cause and effect, domination, competition, cooperation). This is a useful concept because it allows us to take into account the relatively recent developments in the knowledge economy and the knowledge market, particularly related to the proliferation of communication channels and the diversifying sources of production.

Are there other possible conceptual approaches for studying the research environment?

Analyzing the micro level through to the global level may be an interesting intellectual exercise but, in practice, is unrealistic, at least initially. Moreover, some elements of the micro level are useful for understanding a given situation but do not necessarily help us characterize the research environment, which, by definition, goes beyond the individual. As a matter of fact, a multitude of factors that have nothing to do with the immediate research environment influence the activities and practices of researchers. Electricity supply and researchers' marital status, for example, may be important variables in some contexts but not in others. Which variables are therefore relevant for an understanding of the operation and the properties of the research system?

What are the boundaries of the research environment?

Studying a specific environment assumes knowing where the boundaries lie. It is possible to identify a multitude of factors that influencing professional research, including indirect ones such as communication facilities or power supply. This issue is fundamental to our goal of measurably characterizing the conditions under which research in social science takes place. The pilots are, on this issue, very heterogeneous, and a larger study will probably have to make choices. The context must be studied and the measure of its influence on the social science research system must be considered in order to clearly define our object of study. This is the only way to limit the scope of the analysis and make it viable.

What is the environment we are looking at? How far should we go to find the factors that influence the practice of research?

To develop a framework for understanding the research environment it is important to establish basic common criteria relevant in all contexts in order to establish a universal reference. The idea is to identify specificities (strengths, weaknesses, challenges, bottlenecks) through a comparative approach. However, this is difficult given the diversity of pilot projects. In some emerging countries, the existence of a support system for patents or an international mobility grants system will be relevant, while in

some less developed countries, the needs of researchers may be more basic – a desk, a working computer or electricity.

This raises the possibility of developing an adjustable analytical tool, which would allow for both – in other words, to characterize a common basis for all countries, with the option of going into further detail.

The institutional context is essential for understanding the research environment. We cannot ignore the nature of the political regime and the dominant ideologies of the countries studied; particularly the influence this has on research funding modalities. As noted earlier, a public body supporting research is a key element of the research environment.

Finally, the Indonesian and Indian pilot studies remind us that there can be significant disparities between regions within the same country. This issue must be addressed if we are conducting national level analyses. Should we, therefore, divide countries into geographical areas or consider the degree of integrity of the research environment as an assessment criterion?

2.2.3 Demand and Funding to Produce Knowledge

The pilots highlight the importance of determining the origin of research demand and, in particular, identifying institutions or organizations that can influence the research market. Depending on the context, demand principally originates from the public or private sector, at either the national or/and international level. At times, the dominant influence of international aid organizations may sometimes undermine the autonomy of research and go against the priorities of researchers. Similarly, research demand guided exclusively by a public institution can be severely limiting. The ideal seems to be an intermediary position, whose properties and indicators have yet to be precisely defined.

An analysis of the pilot projects reveals that demand for research is structured by public institutions, international organizations and, to a lesser extent, organizations belonging to 'organized civil society' (companies, unions, associations, NGOs, etc.). It is important to keep in mind that demand does not necessarily equal funding. The way demand for research is expressed by society is disconnected from research funding schemes, but is integrated into the production of knowledge. This 'indirect demand' from society is part of the research environment and must be taken into account.

It is interesting to note that the relations between academia and public authorities are the subject of special attention, particularly because of the political and social content of social science research. The influence on public policies by the academic community is clearly identified as an element contributing to successful research. This relates to one of the three pillars of academia, that of 'service to society', often underdeveloped and underestimated, which must be taken into account in the characterization of the research environment. It might be useful to think of this in terms of the degree of 'permeability' – the extent to which the application of research is able to 'absorb' social issues, enabling knowledge producers to have some influence on the definition of agendas of the agencies that formulate priorities and strategic areas. Thus, whatever the origin of the demand, there must be a minimum level of permeability to ensure the autonomy and sustainability of knowledge production.

This issue is also linked to basic academic research. When the primary role of social

sciences is seen as providing knowledge for the definition and application of public policies, researchers are forced to adopt a utilitarian approach that discourages other types of research. This is a pitfall that needs to be avoided – an opinion shared by the authors of the pilot studies. The history of science shows that major discoveries would not have been possible if the research that gave rise to them had adopted a purely utilitarian approach, and was not simply guided by intuition, creativity and imagination.

Demand originating from the commercial and private sector is presented, in all the pilots, as anecdotal and largely 'disconnected' from social science public research. However, we should keep in mind that this is not always the case, and that knowledge generated by social science research can also be relevant to private businesses. If private companies rely on private consultants to produce the knowledge for informing their decisions, it is not out of the question that universities and public research centers could also meet their needs. For this reason, consulting firms – as well as NGOs, who sometimes take on this role – could be included in the group of knowledge producers.

The study of the demand for research also raises the issue of the availability of data. The pilot projects show that, in some contexts, it is not always easy to obtain reliable data on public institutions, NGOs or international organizations.

The pilot projects reveal, unsurprisingly, that the availability of funding is essential to the effectiveness of research. More important than the amount of funding, however, is the diversity of funding sources; this emerges as one of the key criteria for assessing research systems. We note also that no concerns are raised about competitive bidding, which is now common practice; particularly given that competitive bidding (which tends to focus more on outputs) often fails to secure funding for essential basic resources such as work spaces and IT facilities.

Moreover, the source of funding affects the practice of research. Funding from international organizations is often accompanied by stringent bureaucratic rules and follows guidelines sometimes disconnected from the interests of researchers. Nevertheless, their allocation processes are considered to be transparent and less prone to clientelism than national or local funding systems (where they exist).

2.2.4 Knowledge Producers and Research Supply

Identifying the characteristics of research supply seems to have been, for the authors of the pilot studies, more complex than the characterization of demand (which often only included public institutions and/or international cooperation actors). The analysis of supply shows, in most cases, **a diversity and plurality of knowledge production**. Consequently, pilot projects limited to studying public universities achieved more consistent results than those integrating other knowledge producers. This may mean we need to adopt a sectoral approach, or sidestep this issue in order to avoid an analysis of incomparable elements.

Whatever the criteria selected to characterize research supply, the concept of critical mass is central. Thus, a purely quantitative measure of supply that can be applied to all contexts and at all scales is a minimum requirement. This could include, for example, measuring the number of researchers per student, per laboratory, per university, or even, per capita. Then, identifying the characteristics of individuals allows us to build up an overview of personal profiles and professional

activities. Elements such as gender, average age, levels of education or wage levels are useful for shedding light on the research supply. An understanding of individual practices – such as university professors 'moonlighting' as consultants – also provides information on the degree of structuring of supply and regulation of the sector.

Public or private?

The relationship between supply and demand raises the question of the balance between the supply of public research and production originating in the private sector. What are the implications for countries if all (or most of) the knowledge produced comes from private initiatives (supported by private companies and/or international donors)? At what strategic points should state authorities become involved in the production of knowledge? The pilot studies show that too much state intervention – as well as not enough – leads to manipulation.

Where is the limit? How can we measure the level of autonomy/independence of research producers?

Research supply should also be studied beyond the individual level. Indeed, the pilot studies are most relevant at the meso and macro level, because this is where we avoid particularities linked to individuals and where the biases related to non-representative samples are minimized. Links and institutional collaborations between faculties, laboratories and universities – often labeled as 'partnerships' – are very instructive for understanding the dynamics that characterize a research system. Similarly, institutional relationships between higher education institutions and businesses or NGOs tell us a lot about the scope of social issues covered by research producers.

From an institutional point of view, the study of supply strengthens our understanding of the immediate environment for researchers and the structure of the research system. For example, policies on university or national research allow researchers to position themselves in relation to their professional environment and better understand the decisions taken by governing authorities. The relationships between knowledge producers and their regulatory authorities is also important at the macro level because research supply is, despite the current trend for promoting private initiatives, always influenced, and sometimes entirely designed, by public institutions. Although private consulting firms may be able to increase their visibility and legitimacy on the national stage through the quality of their work, and consequently influence the way a specific issue is managed, they are unlikely to have the same impact as politically-driven national public policy – such as the one implemented in Niger, which resulted in the establishment of three new public universities.

2.2.5 Knowledge Is Produced from Human and Financial Resources

Studying the production of knowledge as a process of transformation, comparable to that of a business, could be a somewhat reductive approach if not accompanied by further analysis of research systems. Nevertheless, it is a useful exercise for highlighting the many mechanisms that can transform human and financial resources (inputs) into knowledge (outputs) and to document the factors facilitating or hindering the process. Adopting a functionalist approach also allows the identification of practices which contribute to the achievement of objectives, and

reminds us that social science knowledge ultimately improves our understanding of society, and (hopefully) informs governance decisions.

Producing knowledge requires much more than just scientific expertise. The practice of research follows, in most contexts, the project cycle – in other words, a sequence of planned steps, punctuated by the production of deliverables and evaluations. The project cycle is not specific to the field of research but it has been adopted, for better or for worse, by research agencies.

The availability of human resources is, of course, a necessary condition to start production. On this point, the pilot studies show the importance of human resource management. In addition to wage levels, support for career development, vocational training or a bonus system for publications are key elements of the research environment.

Training on research methodologies and practices is crucial for developing the research culture; whether it be training researchers themselves, students or even educating young children on the importance of the scientific approach. Access to scholarships for financing higher education and opportunities for taking part in student exchanges should probably also be considered.

Another condition, dependent on human resources, is the ability to obtain financial resources. To do this, researchers must write up a research proposal, usually in response to a call for tenders. This requires specific skills (among them, of course, writing skills but also knowledge of the donor's expectations and culture). It requires access to existing knowledge on the subject via libraries and subscriptions to scientific journals. It also requires a great deal of time and some expertise – to the point that many universities or research centers have established support units, responsible not only for helping researchers write their projects, but also for identifying suitable tenders and compiling project proposals.

Once the finances have been obtained, researchers must deal with a whole range of activities in addition to the purely scientific aspects of the project; this includes the management of human and financial resources, internal and external communication, the application of results (publications, patents, etc.) and their dissemination. Researchers may also have to deal with ethical, legal or quality issues in meeting international standards.

Another important point raised by the pilot projects is the importance of English language skills, particularly in relation to access to the international knowledge market. It is clear that a lack of English proficiency is a major barrier for researchers, not only to accessing funding – bidding for a tender in English – but also to developing, communicating and disseminating their results internationally.

Last, but not least, social capital and access to networking opportunities are crucial for facilitating research collaborations and projects, as well as the dissemination and uptake of research. Social capital is dependent on peer culture, the existence of spaces dedicated to social interactions in the professional sphere and the perception and prestige of research and researchers in society in general. Access to networks may also facilitate interdisciplinary and international collaborations, which is an increasing trend in research production. The use of ICT and, in particular, professional social networks such as LinkedIn or Research Gate provide a useful indicator of the level of 'porosity' of the research field and the degree

of integration with other professional sectors.

All of this requires skills that go far beyond scientific skills, but which are nonetheless essential for the effective operation of research activities.

2.2.6 The Use and Exploitation of Knowledge: Influence and Reflection of the Research Environment

Understanding how the research system works must not be limited to the production of knowledge. We must also consider how it is used and how far it travels. Indeed, the research environment should be conducive to transforming research into innovations, while also acknowledging the source and origin of the research. At this level, the role played by public institutions and sectoral policies to support social science research – both in theory and in practice – is essential.

Research results are meant to be shared within the academic world, not only for the progress of science, but also to gain public recognition and for career advancement. A dedicated professional space and dissemination facilities are fundamental to the project cycle. They must be taken into account in the characterization of the research environment.

Aside from the theoretical knowledge produced by basic research, the purpose of the social sciences is to develop a better understanding of our societies and improve both public and private governance/ decision-making. Academic research production is preferred over knowledge produced in less formal environments. However, research (of all kinds) often remains confined to the academic community, gaining little recognition among the public, and importantly, among those who could make the best use of it. This is regrettable, particularly as progress is based on knowledge. The disconnect between public (or collective knowledge) and public decision-making is not unique to the social sciences or developing countries, but the consequences are probably more important.

To increase the uptake of social science research, many organizations and institutions are promoting new ways of presenting their results, to make them more accessible to a wider non-specialist audience. Many of these initiatives have been stimulated by new, sometimes exciting, perspectives offered by information and communication technologies. This shows that the way knowledge is used is another key element characterizing the research environment which, in turn, has a huge influence on the practice of research.

The dissemination of results, specifically their publication at the national level, assumes the existence of a peer evaluation system and a quality assurance system. This requires a 'critical mass', rarely reached in developing countries, which also allows the creation of discussion groups and encourages collective emulation, through learning societies, schools of thought or other forms of collective action/reflection. Finally, as the example of Cambodia illustrates, there has to be level of political freedom so that researchers are not constrained by interference from state authorities.

Normative approach

For many questions raised by the pilot projects, it is impossible to avoid references to what is good, bad or acceptable. For example, what makes for a positive research environment, or what is the preferred balance between autonomy and a binding institutional framework; between independence and financial security?

What is our reference? Do we, for example, use the US (Harvard) approach as a model of best practice?

3. A Universal Framework

A better understanding of developing countries' research environments is essential for national development; it is also increasingly relevant for the development sector at the global level. Indeed, development processes are now intrinsically related to globalization, since production and circulation of knowledge does not stop at national borders. Consequently, we need to be able to produce in-depth analyses at the regional level and to compare national systems; keeping in mind that all of them are, and will become increasingly, interconnected and interdependent. This requires a common framework of analysis. However, given how context-dependent such socioeconomic exercises are, this is a real challenge. We need first to look at the existing frameworks of analysis.

The process of knowledge generation and its subsequent use for social and economic development have been at the core of the new growth theory models. Within this knowledge generation process lie the research activities, undertaken by a variety of actors, including but not limited to the academic community. Research activities have contributed repeatedly to the development and economic prosperity of countries across the world (Tassey, 2009). They also improve teaching and learning, which then reap social and individual gains (Yudof, 2002). Social science research in particular, impacts the work of policymakers and practitioners – although the specific extent is difficult, if not impossible, to capture (Meagher, 2008). In addition, several studies and reports have noted the importance of strengthening the assessment of research, specifically in the social sciences (UNESCO 2010; Gaillard, 2010; Kahn et al. 2011).

3.1 Analysis Grid and Set of Criteria

Our aim – using the findings from the pilot studies – is to overcome the limitations related to the understanding of the research environment. To this end, we plan to design a transversal methodology that aims to characterize the general social science research environment. The first step is to define the object of study through a clear statement of our analysis grid.

The synthesis of the pilot studies proposes a set of criteria, identified by the authors as relevant for an understanding of the research environment in their countries. In line with the objectives of the Doing Research program and the initial approach, we proposed classifying them in a general analytical grid, composed of seven categories. This provided a starting point for the panel of international experts, whose mission was to develop a robust and validated framework, based on this first batch of criteria (presented in the next section).

1. Context and institutional framework
2. Supply actors

3. Demand actors
4. Human resources
5. Financial inputs
6. Production processes
7. Output and social utility.

3.1.1 Context/Institutional Framework

All the pilot studies based their research on observations of the institutional framework in which the research activity is implemented. It is important to understand the research environment not only at the macro level, but also include some of the meso-level characteristics, such as rules set up by universities, or even elements at the laboratory level. In addition, it was essential for many of the studies to take into account elements of the context which have a direct or indirect influence on the research sector. This includes any elements related to rules and mechanisms that have been defined and established outside of the research sector ***stricto sensu***. For example:

a. Type of political regime
b. Degree of political stability
c. Diversity of funding
d. Clarity of national agendas / national research strategy
e. Clarity and stability of rules (at all level)
f. Promotion of multidisciplinarity by authorities
g. International exposure (a lack of which leads to inbreeding and/or insularity)
h. Promotion of regional and international research
i. Existence of an administrative structure dedicated to research
j. Ability to research politically-sensitive issues
k. Clarity of the legal and financial rules for consulting
l. Level of disparities within the country
m. Gender balance

In order to develop a framework for understanding the research environment, all the pilots had to include a description of some of the characteristics of the stakeholders, and the different forms of supply and demand. The criteria identified below, relate to the structure of supply and demand, the kind of institutional actors involved in research, and the way they interact within the sector and with other actors in society.

3.1.2 Supply Actors

a. Public and private universities
b. Public and private research centers
c. Public and private think-tanks (producing knowledge)
d. Other knowledge producers (such as donors or non-academic public institutions)
e. NGOs producing knowledge
f. Availability and access to local networking and collaborations, particularly inter-sectoral
g. Average age of researchers
h. Average levels of education of researchers

3.1.3 Demand Actors

a. Clarity of the role of the authorities
b. Effective national funding agencies

c. Channels of expression for civil society demand (indirect)

d. International donor-driven demand

e. Use of research by the private commercial sector

f. Strength of relationship between supply and demand

Through a description of the context and the institutional framework, and a consideration of the characteristics of supply and demand actors, we should be able to develop a comprehensive **mapping of the research environment**. We then need to understand the knowledge production process itself. Here, as we have seen in the pilots, many different approaches are possible. Nevertheless, like any production process, we find inputs and outputs, and similar kinds of mechanisms and rules of production – governing and responding to the 'project cycle'. Here, we will address questions related to management, productivity and the quality of research.

While inputs are made up of human and financial resources, the production process is measured more in terms of effectiveness, efficiency and relevance; outputs relate to the use of results, their influence on public policies or on collective practices, and their social utility in general.

3.1.4 Human Resources

a. Dynamism of the employment research market

b. The degree of 'inbreeding': the number of researchers holding a PhD obtained from the university where they work

c. Management of life-long capacity building and career development plans

d. Incentives for researchers (blame/reward systems)

e. Salary levels

f. Structural constraints

g. Opportunities for hiring international students for teaching (related to international exposure)

h. Incentives for research; publications included in performance measurement

i. Flexibility to contract lecturers and researchers

j. Correlation between salary and research productivity

k. Incentives for internal publishing

l. Gender balance

m. Availability of student grants

n. Research training in first year of graduation

o. Workload

p. Level of English language skills

3.1.5 Financial Resources

a. Autonomy versus security

b. Number of possible grant schemes

c. Success rate for grant applications

d. Flexibility of funding (bound to the fiscal year?)

e. Management system following quality norms (International Standard Organization norms)

f. Existence of a quality assurance body

g. Funding availability at national/regional/international level

3.1.6 Production Process

a. Quality of available data (statistics)

b. Availability of research infrastructure and facilities

c. Availability of administrative support for writing research and grant proposals

d. Norms/rules for publication

e. Access to current research resources

f. Characteristics of projects (long-term, short-term, etc.)

g. Access to academic journals

h. Availability of support for management of financial resources, publications, etc.

i. Share of published research on a country carried out by local researchers

j. Opportunities for cross-sectoral knowledge production

k. Quality of the peer culture

l. Gap between researcher's areas of interests and themes promoted by donors /governments

m. Proportion of scholars promoting research projects

3.1.7 Output/Social Utility

a. Number of journals for communicating findings for policymakers

b. Perception of improvement or deterioration of activity

c. Quality of dissemination and communication practice

d. Accessibility of outputs (in the local language, for example)

e. Quantity/quality of local journals

f. Balance between publications in local and international journals

g. Existence/possibility of spin-off companies within universities

h. Quality of evaluation of research output

3.2 A Common Framework as a Basis for Analysis

As any in classification, these categories can, and must, be the subject of debate. With this in mind, a workshop was organized in Brighton between the 26 and 27 May, 2016, to discuss, challenge, and eventually validate through a collaborative process the categories for the common framework. The workshop was attended by 17 participants, 10 from the program and 7 new program stakeholders. The workshop resulted in clarifications to both the conceptual basis of the Doing Research program and the methodological choices that need to be made to move on to the next steps. It aimed to take stock of lessons from the pilot phase; present a synthesis of approaches for assessing the research environment; discuss insights from other initiatives and practices; and finally, engage in exploratory work to draft the conceptual and normative dimensions that will form the basis of the final assessment tool.

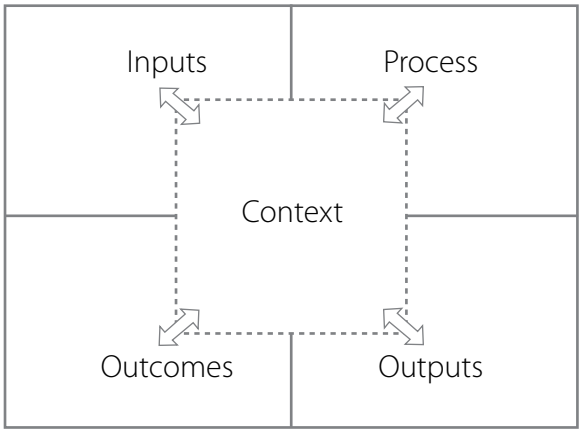
The presentation of the draft synthesis (most of which is presented above) included a brief review of all the pilot case studies and analyzed thematic aspects that arose from the synthesis exercise. Following this presentation, three groups discussed the relevance of the proposed framework and its conceptual justification, and then started populating its dimensions. Discussions on the framework itself reached a consensus. Each of the groups stressed the point that the framework should be contextualized, flexible, development focused (to encourage capacity building and enhance social utility) and participatory, as well as synergize and add value to existing efforts. It should not only qualify research environments but also

encourage debate by analyzing challenges and raising questions. For this reason, ranking would not be the most appropriate approach. Ultimately, the framework should aim to make research more useful for policy and for improving people's lives. It could take the form of a periodic (but not annual) global report, with country case studies in between, accompanied by an open access, online knowledge sharing platform, such as a database on research systems and policies. The data would be used to sustain interest in the program, with regular publications of analyzed data on the research environment. The idea would be to develop an 'observatory' of research policies.

The **inputs** include funding, infrastructure (workspaces, libraries, ICT, etc.), human capital (skills and time allocated to research), actors (types of organizations) and data (availability, quality, accessibility). The **process** component includes policies and the incentive structure, mentoring (vertical and horizontal), peer review culture, research administration, leadership and management, networks and research communities (local and global), links between research producers and users, quality control and ethics. The **outputs** include academic output (published on SCOPUS), research-based policy outputs[2] (policy notes, policy workshops) and human capital (number of graduates, balance of genders and other socioeconomic groups). The **outcomes** include how research is mainstreamed into society (graduates working outside academia, research in the media and for advocacy, training of policymakers), the use of research for policy design (measuring the interaction between academia and policy circles), policy implementation (research-based monitoring), and policy evaluation. The **context** component includes the cultural specificity, historical trajectories and the political economy.

We then attempted to define the dimensions and came to the following consensus:

- **Context**: Historical, cultural, political and economic conditions in which research takes place and is used.
- **Inputs**: People and resources needed to produce robust social science research.
- **Process**: The set of rules, ethical principles, activities and interactions producing and promoting research.
- **Outputs**: Tangible products of research including publications, communications, and people trained in producing and using good research.
- **Outcome**: Policymakers, practitioners and the public actively support and use research-based evidence and knowledge in addressing societal problems.



Finally, we agreed that the research environment should be analyzed at the national level, potentially using a 'Production-Use-Value' lens for analysis. The criteria should capture the 'spillover effects' from training human capital in research, as well as the incentives (including non-monetary incentives) created by the research environment. It should also find a

2 Note: the difference between academic output and research-based policy output is largely a difference in format: the latter is the application of the former.

way of measuring rigor in non-academic research outputs. The criteria should capture the social usefulness of research in terms of transparency, accountability and policy dialogue. This usefulness should also be measured for stakeholders such as the media and NGOs.

Conclusion

The results of the ambitious and exciting pilot phase of the Doing Research program are both highly rewarding and challenging. Indeed, the Doing Research program is based on the bold hypothesis that it is possible to describe and measure the optimal conditions for the implementation of research in social science. The first step was to develop a unique reference on which to build a universal analysis grid. The pilot phase has achieved this challenge: the diversity of methodological approaches and the conclusions of the studies undertaken by our colleagues can be considered both a weakness and a strength. The cross-comparison and superimposition of the knowledge produced, based on data and on concrete research experiments, allowed us to identify the key factors explaining the performance of a research system. Through the justification of their methodological choices, the pilot studies have given us valuable information on the purpose of their research (research systems) but, above all, guided us toward the elaboration of a common referential framework.

Another important outcome of the pilot phase was a gradual conceptual shift during the implementation of the project. The initial object of study was defined based on the general hypothesis that the quality of knowledge produced through the research process depends on a variety of elements (explanatory factors), which together make up the research 'environment'. However, the analysis of the seven pilot studies revealed the limits of this approach; particularly the many inter-relations between the explanatory factors and, most importantly, the diversity of their components. Consequently, we prefer the concept of a 'system', understood as a set of heterogeneous actors, interacting with

each other according to certain rules or principles, and responding to various kinds of relationships; this reflects more accurately the interdependence of the components contributing to research quality.

However, answering some questions revealed new ones. Exploring the complexity of research environments in developing countries raised fundamental questions about the boundaries of the scope of study, the normative aspect of research quality, and the balance between production of research by public and private actors. We realized how important it was to define as clearly as possible the conceptual basis on which the Doing Research tool will be constructed. This will allow us to 1) communicate clearly the goals of the program and 2) design the right solutions for the problems we are trying to solve.

The pilot phase also highlighted the different strategic points we need to address in the scale-up phase. First, we must keep in mind that the final product must be flexible in order to take into account the diversity of contexts and of research producers. Second, the priority must clearly be on developing a robust assessment tool before marketing – developing a ranking is a secondary consideration. Third, the final product must serve a diversity of stakeholders and purposes: policy actors to support the implementation of more efficient and enabling research policies; research administrators, such as deans and rectors who take decisions at the meso level; researchers themselves to document the challenges that apply to their research environments; and international donors and capacity building organizations to better tailor interventions and support. The information garnered from the assessment tool should also be captured and made available to the public. NGOs and the media are therefore clear targets for relaying this information.

In order to meet these challenges, the framework's conceptual basis will be made explicit in a separate note, taking the form of a GDN working document on the Doing Research Framework. This will help construct the theory of change underlying the rationale and strategy for the assessment tool. We will also populate the framework with a first batch of clearly identified and measurable indicators, both quantitative and qualitative. Finally, a concept note will be prepared to support an upcoming fundraising effort for testing the assessment tool.

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Notes

The Global Development Network

The Global Development Network (GDN) is a public international organization that supports high quality, policy-oriented, social science research in developing and transition countries to promote better lives. It supports researchers with financial resources, global networking, and access to information, training, peer review and mentoring. GDN acts on the premise that better research leads to more informed policies and better, more inclusive development.

Through its global platform, GDN connects social science researchers with policymakers and development stakeholders across the world. Founded in 1999, GDN is currently headquartered in New Delhi.

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