

# RESEARCH CAPACITY OF RELATIVELY SMALL COUNTRIES IN LATIN AMERICA/CARIBBEAN: MAPPING/DIAGNOSTIC STUDIES\*

December 14, 2017

## Synthesis Report

### ABSTRACT

This mapping study is part of the initial stage of a Global Development Network (GDN) project supported by the Inter-American Development Bank (IDB) that aims to strengthen the research capabilities of institutions in 17 relatively small countries of Latin America and the Caribbean. Central to achieving the outcomes of the project, and indeed its point of departure, is a mapping/diagnostic study that identifies actors and issues relevant to research capacity and its contribution to public policy in the countries of focus. This paper provides a synthesis of the three 'country group' studies, and covers: the objectives and methodology used for the 'mapping' or 'diagnostic' studies; an overview of the country groups, including major differences and similarities within each group; and emerging findings in terms of the production and use of social science research, and of research priorities based on the views of interview and survey respondents in each country group. It also flags knowledge and information gaps encountered and offers some conclusions, including implications for the next steps in the broader project.

### KEYWORDS

Institutional research capabilities, public policy, research mapping, social science research

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## LIST OF ABBREVIATIONS

CARICOM	Caribbean Community
CEPAL	<i>Comisión Para America Latina</i> (Economic Commission for Latin America)
CGE	Consortium for Global Education
CSO	Civil Society Organization
FTE	Full-Time Equivalent
FDI	Foreign Direct Investment
GDN	Global Development Network
HDI	Human Development Index
IDB	Inter-American Development Bank
INCAE	<i>Instituto Centroamericano de Administracion de Empresas</i> (Central American Institute of Business Administration)
INESAD	<i>Instituto de Estudios Avanzados en Desarrollo</i> (The Institute for Advanced Development Studies)
IRS	Inland Revenue Service
LAC	Latin America and the Caribbean
LACEA	Latin American and Caribbean Economic Association
LAMP	Latin American Migration Project
PAHO	Pan American Health Organization
PEP	Partnership for Economic Policy
SABE	The Survey on Health, Well-Being and Aging in Latin America and the Caribbean (Project SABE)
SCI	Science Citation Index
STEM	Science, Technology, Engineering and Mathematics
STI	Science, Technology and Innovation
TTCSP	Think Tanks and Civil Societies Program
TTI	Think Tank Initiative
UWI	University of the West Indies
WDI	World Development Indicators

## EXECUTIVE SUMMARY

This study is the initial stage of a Global Development Network (GDN) project that aims to strengthen the research capabilities of institutions in 17 relatively small countries of Latin America and the Caribbean.<sup>1</sup>

GDN and the Inter-American Development Bank (IDB), who fund the project, wish to better understand the particular constraints faced by small countries in the production and use of *policy-oriented* social science research. Central to achieving the outcomes of the project, and indeed its point of departure, is a ‘mapping/diagnostic’ study that identified actors and issues relevant to research capacity, and its contribution to public policy, in the 17 countries of focus. This paper provides a synthesis of the three ‘country groups’ and covers:

- The objectives of the ‘mapping’ or ‘diagnostic’ studies
- An overview of the country groups, highlighted major differences and similarities, and the methodology used for the mapping
- The emerging findings from the country groups, in terms of the production of social science research, the use of research by various policy actors, and research priorities based on views expressed by interview and survey respondents. It also flags knowledge and information gaps encountered
- Conclusions arising from the mapping study, including implications for the next steps in the broader project

The ‘Mapping’ looked at the general environment for production and use of social science research in the countries covered in each group. It is important to note that the mapping did *not* assess the quality of research produced by national researchers – except insofar as capturing perceptions of research quality from survey respondents (including researchers).

As the focus of the project is on research capacity within small countries, the mapping did *not* include research activities undertaken by North American or European organizations and researchers. For example, quite a number of American and Canadian universities undertake research projects, or study programs in Latin America and the Caribbean (LAC), but do not expressly engage in building institutional research capacity within these countries. Besides this, some of the research referred to by respondents was supported by regional or international research capacity building initiatives such as the Global Development Network, Latin American and Caribbean Economic Association (LACEA), Partnership for Economic Policy (PEP) and the Think Tank Initiative (TTI).

Despite some very obvious similarities (10 of the 17 countries are in the ‘high human development’ grouping of the UNDP’s Human Development Index (HDI), with the remaining seven in the ‘medium human development’ group) and many shared interests (the impacts of climate change, ocean and coastal management, trade and regional integration, etc.), the countries in the three groups are by no means homogenous.

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<sup>1</sup> The countries of focus are the Bahamas, Barbados, Belize, Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Suriname, and Trinidad & Tobago.

According to the 2015 HDI, the global country rankings range from a high of 55 (Bahamas) to a low of 131 (Honduras) – the latter being one rank lower than India.

Comparative quantitative data on the production and uptake of policy-oriented research is always difficult to find, although there are several accepted proxies for social science research capacity that can be used to compare the 17 countries:

- Statistical capacity
- Production of general social science research publications
- More specialized research publication production in economics/finance, health and education

Statistical capacity is a good indicator of a country's research capacity because it is a fundamental enabler of many types of research. Statistical capacity has recently come under sharp focus in relation to the need for data associated with the post-2015 Development Agenda and the Sustainable Development Goals (SDGs). As TABLE 1 indicates, countries in the study ranges from a high of 91.1 (El Salvador) to a low of 54.4 (Belize); several countries are under the LAC average score of 77.3.

**TABLE 1: STATISTICAL CAPACITY (OVERALL AVERAGE), 2015**

Country	Indicator score*
Latin America and The Caribbean	77.3
Bahamas	--
Barbados	--
Belize	54.4
Bolivia	78.9
Costa Rica	84.4
Dominican Republic	78.9
Ecuador	72.2
El Salvador	91.1
Guatemala	72.2
Guyana	56.7
Honduras	76.7
Jamaica	77.8
Nicaragua	70.0
Panama	78.9
Paraguay	72.2
Suriname	62.2
Trinidad & Tobago	56.7

\* The average score of the three dimensions of statistical capacity (availability, collection, practice)  
Source: World Bank (2015a), 'Statistical Capacity Indicator', Enterprise Survey.

TABLE 2 below looks specifically at *social science* research, drawing on the Scimago Journal and Country Rank portal that includes journals and country scientific indicators developed from information in the Scopus<sup>2</sup> database. It includes *all* categories of social science research in the Scimago ranking portal (although Scimago does not include economics under social sciences).

Costa Rica, Ecuador, Jamaica and Trinidad & Tobago stand out, although it is interesting to contrast Trinidad & Tobago's leadership in research publication with its relatively low score on statistical capacity – which declined from 75.6 in 2008 to 56.7 in 2015.

**TABLE 2: ALL SOCIAL SCIENCE INDICATORS (LAC REGION)**

	2013		1996-2014	
	Country Ranking	Published Documents	Country Ranking	Published Documents
Bahamas	27	6	26	47
Barbados	15	28	16	216
Belize	28	5	30	36
Bolivia	16	26	15	318
Costa Rica	11	57	13	453
Dominican Republic	22	8	22	82
Ecuador	9	67	14	386
El Salvador	20	13	20	109
Guatemala	17	23	17	203
Guyana	29	5	21	90
Honduras	35	2	24	72
Jamaica	13	52	11	541
Nicaragua	21	10	18	140
Panama	18	18	19	137
Paraguay	27	7	25	57
Suriname	40	1	41	10
Trinidad & Tobago	12	52	10	550

Source: Scimago Journal and Country Rank<sup>3</sup>

TABLE 3 looks more specifically at three areas of research publication of interest to this project. Jamaica and Trinidad & Tobago also perform well in economics (along with Barbados and Costa Rica) and Bolivia ranks highly in terms of health research.

<sup>2</sup> Scopus is the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings, owned by Elsevier. More details can be found at:

<https://www.elsevier.com/solutions/scopus>

<sup>3</sup>[http://www.scimagojr.com/countryrank.php?area=3300&category=0&region=Latin+America&year=all&order=it&min=0&min\\_type=it](http://www.scimagojr.com/countryrank.php?area=3300&category=0&region=Latin+America&year=all&order=it&min=0&min_type=it)



**TABLE 3: RANKING IN SELECTED ‘SOCIAL SCIENCES’ PUBLICATIONS (1996-2014)**

	ECONOMICS, ECONOMETRICS & FINANCE		HEALTH		EDUCATION	
	Country Ranking	Published Documents	Country Ranking	Published Documents	Country Ranking	Published Documents
Bahamas	36	2	29	3	19	18
Barbados	11	77	23	8	15	35
Belize	26	7	26	6	37	2
Bolivia	15	40	9	36	16	21
Costa Rica	10	84	16	25	13	65
Dominican Republic	18	23	19	19	31	4
Ecuador	13	73	14	27	14	54
El Salvador	28	7	22	11	18	19
Guatemala	17	35	17	25	17	19
Guyana	21	13	30	3	22	14
Honduras	19	22	25	7	28	6
Jamaica	9	89	12	29	10	113
Nicaragua	20	21	18	22	21	15
Panama	22	11	21	11	20	16
Paraguay	24	10	27	6	27	8
Suriname	38	2	33	2	-	-
Trinidad & Tobago	12	75	8	38	9	127

Source: Scimago Journal and Country Rank

The mapping focused on four areas of knowledge: the local supply of research; the local demand for research; the local demand and supply for public expenditure analysis; and perceptions regarding research priorities (from both a demand and supply perspective). Key aspects of these are noted below, accompanied by the main conclusions drawn from the surveys, interviews and other data sources.

The first objective was to develop a picture of **the nature of research and researchers present in each of the countries of focus, and the variety and types of organizations doing research**. Mapping sought to reveal what has occupied research attention, where researchers are based (e.g., think tanks, CSOs, private sector organizations, government agencies, universities) and their profile (e.g., age, gender, education, institutional affiliation, capacity building experiences). In addition, the survey sought information on how research was supported, who drives the demand for research, preferences for different types of professional development, researchers’ experience in policy engagement, and the perceived value of different types of capacity building.

By and large information on all these dimensions was obtained – although it is important to note the limitations of the mapping and the relatively small number of respondents (n=131). Two key conclusions are particularly noteworthy in relation to the production of research and the institutional research environment: (i) these countries produce relatively low levels of research, and (ii) their institutional landscapes vary greatly – as is shown, for example, by the uneven distribution of think tanks across the continent.

**Most countries in the study produce relatively low levels of research as measured by various publication metrics.**

Data on journal publications are undoubtedly an important metric, and are an established indicator of national and institutional research activity. However, the picture is not fully complete without a better indication of the overall population of researchers, the capacity or trends in the higher education sector (particularly in terms of the ‘production’ of graduates doing research), and a more comprehensive understanding of the varieties of research being produced. It is also important to be cautious in accepting publication figures as an absolute indicator of research quality, or of policy relevance or utility (although citation rates are a widely-accepted indicator).

In terms of publication per GDP only Barbados and Jamaica exceed the LAC average (14.18), with Barbados close to Brazil at the top of the table – although in absolute terms, Barbados only produced 78 publications in 2013, compared to over 44,500 in Brazil (see conclusion, TABLE 18); and eight of the study countries produced more research than Barbados.

On a per capita basis, Barbados again tops the countries of study, and at 27.4 is roughly double the LAC average – with the same caveat about small absolute numbers. Trinidad & Tobago is the only other study country that slightly exceeds the LAC average; in absolute terms, it produced more than twice the volume of research than Barbados in the same period.

The budget data on research activities is scant; it is only available for five of the countries studied (Costa Rica, El Salvador, Panama, Paraguay and Trinidad & Tobago) and does not provide a clear picture.

The 2013 Science Citation Index (SCI) data on total publications indicates that, collectively, thirteen of the countries in this study account for only 3.4% of the research produced in LAC. More than half of this was produced by three countries: Costa Rica, Ecuador and Panama.

The data on historical trends in SCI publications (see conclusion, TABLE 19) indicates a general increase in research publications in all countries studied from 2000 to 2013, mirroring the LAC trend. However, three countries (Barbados, Jamaica, and the Dominican Republic) showed a sharp decline in research production between 2011 and 2013. Guyana is the only country from the study group with a pronounced fluctuation in research production over the entire period.

A more nuanced (if still incomplete) picture of *research output*, is available from the 2014 figures, which also includes the Bahamas (UNESCO, 2105). For the Caribbean group, Barbados tops the list of scientific publications per million people (182), followed closely by Trinidad & Tobago (109), and the Bahamas (86); Jamaica stands at 47. For the other two

country groups, Uruguay tops the list (241), followed by Costa Rica (96), Panama (83), Ecuador (32) and Bolivia (19); the remainder vary between nine and four publications per million people.

Most published research in the Caribbean Community (CARICOM) relates to health, led by Jamaica and Trinidad & Tobago. The share of social science research is very small according to UNESCO (2015) 2008-2014 cumulative figures. The Bahamas, for example, only produced four social science publications, compared to 42 in agriculture and six in psychology. In absolute numbers, Trinidad's social science output for the same period is more than three times that of any other country in the Caribbean group.

For the Central and South America country groups, while the absolute number of social science publications is much higher – 33 for Costa Rica and 21 for Uruguay, for example – they have a similar share of total scientific publications to that of the Caribbean countries (though research in 'life sciences' rather than 'education' dominates in Latin America). UNESCO (2015) figures do not disaggregate the social sciences, so it is difficult to determine which sub-disciplines or topics dominate publication.

The recent trends in research publication are somewhat discouraging. The number of scientific publications in Jamaica declined from a high of roughly 175 in 2012 to 117 in 2014. Barbados and Suriname are also on a downward trend. Guyana, which started with 14 in 2005 and has fluctuated ever since, stood at 23 in 2014. The Bahamas grew from eight to 33 in the same period. Publication trends in the Central and South American country groups are more positive, with significant growth rates in the number of scientific publications since 2005 for Uruguay (94%), Ecuador (151%), Costa Rica (57%) and Bolivia (72%). All the other countries recorded positive trends, but at lower rates.

As the UNESCO (2015) report points out, countries with 'modest' research output can have among the highest citation rates. For the 2008-2012 period, research from Bolivia, Costa Rica, Ecuador and Panama was above the G20 average citation rate. It is worth noting that in every country in the two groups, the majority of published articles have foreign co-authors. With foreign co-authorship rates ranging from a low of 70.4% in Uruguay, to a high of 97.6% in Honduras, all countries in the group are well above the G20 average of 24.6% (only Brazil is close to this average, at 28.4%).

*Researcher population* figures are somewhat challenging as comparative international data favors research and development related to science, technology and innovation (STI) and there is a lot of missing data, especially for smaller countries – which includes most of the countries in our study.

Of the 17 countries in this mapping study, the UNESCO Institute for Statistics Data Centre on the researcher population (measured by FTE<sup>4</sup> researchers per million people between 2005 and 2012) are available only for seven countries (Bolivia, Costa Rica, Ecuador, Guatemala, Panama, Paraguay and Uruguay). Only two of these – Costa Rica and Uruguay – are above the LAC average of 492 FTE researchers per million: 1,327 and 537 per million, respectively. There is, however, considerable growth in the absolute number of (FTE) researchers in a few

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<sup>4</sup> FTE – full time equivalent

of the countries. For example, Costa Rica's researcher population grew from 548 in 2003 to 6,107 in 2011, while Ecuador saw a growth from 983 researchers in 1996 to 2,735 in 2011.<sup>5</sup> Figures for Caribbean countries are not available.

The *higher education* picture is quite different, at least in Latin America, where figures are provided by UNESCO (2015). The majority of first degree graduates are in social sciences (56% in 2012), compared to the next largest cohort, engineering and technology graduates (15.3%). The share of PhD graduates is also highest for social sciences and humanities (48%), followed by the natural sciences (14.75%). Up until 2000, these two fields were much closer in relative size, and at one point the natural sciences dominated. When one looks at the number of doctoral graduates per million inhabitants in LAC in 2012, the numbers in the country groups are low to modest – ranging from one in Ecuador to a high of 25 in Paraguay. By contrast the figure for Brazil is 70, which is higher than for China and South Africa (39 and 36 respectively).

### **The institutional research environment**

The first obvious feature is the more visible presence of think tanks in Latin America than in the Caribbean group. The small size of island states presents a significant challenge to stand-alone national think tanks and, to date, efforts to develop regional independent think tanks have not been very successful. Of the study countries in the Caribbean, The Dominican Republic seems to have the most visible think tank community, and the research environment has much more in common with Central and South American countries (including so-called think tanks that act more like advocacy organizations than research bodies).

In the Central and South American countries, a vibrant network of think tanks has emerged, and although many engage more in advocacy than in the technical production of research, there is clearly an emerging regional 'think tank' sector. There are also some strong research networks in the region – although many that refer to themselves as LAC networks are only marginally active in the Caribbean.

All three country groups include countries that are heavily reliant on one or two small, modestly-endowed universities. There are also examples across the sample of universities that have developed exceptionally high-quality programs, and a few that are formally pan-national schools. In terms of possible synergies, it would be useful for GDN and others to consider how the region's top think tanks and universities might play a stronger role in research capacity building in small countries, where human and financial resources are limited.

Despite the differences among the countries in the three groups, researchers in Latin America are a growing segment of the academic sector, and in some countries, are increasingly involved in working closely with the private sector, universities, international donors and civil society. The most significant characteristics of this group are its relatively young age (especially in countries where the majority of researchers have only

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<sup>5</sup> UNESCO Science Report: Towards 2030, 2015

undergraduate degrees), the relatively equal participation of men and women in research, the growing cadre with foreign experience (such as post-graduate studies), and the growing numbers involved in multi-sector or cross-disciplinary networks. There are several 'takeaway' messages from this overview:

- Addressing the lack of post graduate-level trained researchers needs to be a priority in some countries. The large numbers of researchers (almost 40% in some countries) with training that stopped at undergraduate level, has significant implications for research quality.
- There is a need for so-called compensatory training and development, specifically professional development that makes up for the lack of academic coverage and levels of education among researchers. Even among researchers with doctoral level training, the surveys indicated a desire for better exposure to non-degree professional development and training, such as in research methods and other technical skills (i.e., survey design). Both researchers and non-researchers, in almost all countries, expressed a view that the quality of research training in national universities was weaker than it should be.
- The absence of a more systematic, comprehensive and comparative mechanism for monitoring the social science research environment at a national level, that emphasizes research use in the context of public policy, is clearly a gap. Surveys and mapping activities like this study can provide a picture but:
  - a. are not much more than a snapshot;
  - b. tend to overstate the anecdotal; and,
  - c. have uneven coverage of many stakeholders.

It would be worth further exploring the utility and possible design features of an indexing instrument that can be applied at regular intervals to assess the societal visibility of research at the national level. This might include monitoring such indicators as research references in print, radio and television, in web and social media, and in public policy documents such as speeches, announcements, sector plans and strategies, and consultation papers.

The second objective was **to develop a picture of the current and potential audiences for research, primarily but not exclusively, in the focus countries**. The mapping looked at the audiences for policy-oriented research (policy actors), and their involvement in research demand and funding.

The mapping evidenced some interesting differences in views on issues ranging from research quality, capacity building and research needs, as seen from the perspective of those who use research and those who produce research.

Spaces for engagement between policymakers and researchers appear to be limited. The interviews with users and producers of research portray a lack of engagement and understanding of each other's needs and capacities. Both groups acknowledge that donors can play a brokerage role, by connecting and facilitating dialog on a research topic.

Researchers face difficulties identifying critical bottlenecks and research questions for policy-relevant research. The survey brought out some general research priorities. However, in the interviews, the researchers had difficulty clearly identifying specific policy-relevant questions.

Under scrutiny from a more educated population, policy actors can, should they choose, become more explicit in demanding the involvement of researchers and research institutions in assessing alternative ways to address a wide range of problems present in the region. Currently, the opportunities for policy actors to articulate research needs, support mobilization of research resources, and align timing and relevance, are limited. The interest expressed by several senior officials in having a comprehensive national research index or framework underscores this. For many policy actors, the research needs/supply picture of their country is at present highly fragmented and abstruse.

Capacity development is also relevant to policy users, whether in enhancing informed decision-making on research design (to the point of being able to distinguish whether or not a research proposal will address the questions required) or in enhancing communication from researchers to policy actors within and outside government. To inform thinking on capacity development strategy, including that of this research project, the mapping has identified the perceptions of researchers and users of research on a wide range of capacity gaps. For example, researchers prioritize developing their communication skills, while users of research believe that researchers need to improve their methods and analytical skills.

The third objective was **to capture the extent to which research and policy attention has focused on public expenditure analysis generally, and on research specific to health and education** in the countries of focus. The mapping sought to compare the level of research attention given to public expenditure analysis, and/or service delivery, with other areas of research attention, as well as the level of interest from policy actors in these areas.

Closely related to this is the fourth objective: informing an understanding of views on **what the major areas for policy-oriented research attention should be for the next five years**. The surveys/interviews sought to obtain perceptions of priorities and the drivers of research priorities, and to understand how research related to public expenditure in education and health is situated among other perceived priorities. Both areas are intertwined.

As is apparent from the surveys, **health and education research are among the top areas of current and recent activity by significant numbers of researchers** (46% and 35% respectively), although a much smaller number (27%) indicated on-going activity in public expenditure analysis. However, a significant number indicated experience in program evaluation and impact evaluation.

It is also worth highlighting how researchers saw the top research needs of their country: 65% indicated health; 70% indicated education; 59% indicated public expenditure analysis; and 67% indicated impact evaluation. Only economic development and employment/livelihoods received higher rankings (76% each).

Policy actors' experience and views, not surprisingly, differ somewhat from those of researchers. When it comes to research subjects of interest to policy actors *in the past 10 years*, the top three subjects were health, education and program evaluation (51% each),

followed closely by impact evaluation (48%), and public expenditure review (38%). All other subjects received lower response rates.

In terms of research needs for their countries, again, policy actors cited in descending order of priority: economic development (72%); health (60%); environment (56%); employment/livelihoods (52%); growth and inequality, and program evaluation (48% each); education and social protection (44% each); public expenditure reviews and impact evaluation (40% each).

Interviews with policy actors added to this picture of potential demand. Instead of focusing on the size of budgets, policy actors were increasingly interested in alternative approaches to solving education and health problems. This is partly related to increasing concern about transparency and accountability of funds used for social programs, as well as interest in the effectiveness of alternative policies and services.

When prompted regarding the priorities they would personally set for their country, however, responses of demand and policy side actors overlap on health and education as first priority, followed by economic development and impact evaluation as second priorities. TABLE 15 de facto identifies topics for which capacities exist (common topics between supply and demand side actors) and those for which capacity building efforts, including externally coordinated ones, might be most needed (topics present in the priorities of demand side actors across the region, but missing on the supply side) before demand-driven policy relevant research can be produced systematically, and feed into the policy debate. Climate change-related research appears as one of these high priority topics for which basic capacity building might be needed.

The main takeaway messages in this area are:

- That regardless of whether GDN follows researchers' views on research needs or those of policy actors, there is sufficient commonality of interest to justify a focus on health and education research in the next stage of the project. For the six projects anticipated across the 17 countries, it will not be difficult to find researchers or policy actors interested in these subjects. A more challenging aspect will be:
  - a. to decide if both health *and* education as broad subjects can be properly accommodated in a single project that only involves six research grants. It is worth considering choosing one or the other, and if so, health would probably better reflect policy interest; and,
  - b. to determine within the subject(s) what specific researchable issues would resonate most.
- It might also be useful to broaden, somewhat, the notion of research on health or education from its current focus on public expenditure. Given the interest in program evaluation and impact evaluation, a conceptual framework that accommodates assessing the outcome of a specific policy or program intervention (i.e., a new law, regulatory changes, an intervention to enhance access or uptake or service quality, etc.) can probably accommodate both financial and non-financial analysis.

- Because of the widespread challenges in research-policy interaction, it could be helpful to use the March 2016 Policy Lab as a forum for refinement of the specifically researchable issues. This will increase the likelihood of policy interest in the project, enhance cross-country comparability of findings, and ensure the research questions will yield answers that are useful to policy actors – hereby not only regarding researchers' interests, as is often the case.



## INTRODUCTION AND OVERVIEW

This study is the initial stage of a Global Development Network (GDN) project that aims to strengthen the research capabilities of institutions in 17 relatively small countries of Latin America and the Caribbean.<sup>6</sup>

GDN and the Inter-American Development Bank (IDB), who fund the project, wish to better understand the particular constraints faced by small countries in the production and use of *policy-oriented* social science research. The project complements other work being done by GDN, particularly the current 'Doing Research' project.<sup>7</sup>

There is a general assumption that many of the challenges and constraints related to undertaking policy-relevant research are similar across most low-income countries. This project will help identify the challenges or constraints specific to small nations. Although this project is concerned with all types of policy-oriented research, it is especially interested in research capacity relevant to public expenditure analysis and improved service delivery in education and health.

Four terms are used throughout this paper that require early definition:

1. The project is concerned with **policy-oriented** research, meaning research that is undertaken with the objective of informing public and political discourse on a particular issue, and acting as a source of evidence to support policy decision-making.
2. In addition to interested research users in regional and international organizations, national **policy actors** include a large group of people who use a variety of research outputs, including research reports, underlying data, policy briefs, presentations, web and print materials, and blogs. Policy actors also specifically include political and public service officials, journalists, civil society groups, the private sector and members of the public.
3. The project's focus on **social sciences** encompasses a variety of disciplines such as economics, political science, human geography, demography and sociology, as well as fields in the humanities such as anthropology and law. The project involves a number of conceptual and methodological approaches as identified in the survey instrument in the ANNEX. It is worth emphasizing that, from a public policy perspective, the need for national research goes beyond the boundaries of the social sciences. A number of informants identified interests that fall within the natural and life sciences, or noted the need for complementary attention in relation to specific issues. For example, climate change or agricultural research could be usefully complemented by research on the

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<sup>6</sup> The countries of focus are the Bahamas, Barbados, Belize, Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Suriname, and Trinidad & Tobago.

<sup>7</sup> The 'Doing Research' project seeks to develop a comprehensive understanding of the factors (policy frameworks, institutional factors and informal relations) that influence the organization of social science research, its quality, quantity and social relevance. The pilot project has led to the development of a systematic methodological framework for assessing the research environment and research productivity in developing countries. See more at: [www.gdn.int/dr](http://www.gdn.int/dr)

potential impact of shocks on livelihoods, food security or poverty, using social science methods like Small-N case studies or social network analysis.

4. Lastly, the term **LAC** is used to refer to Latin America and the Caribbean *in its entirety*; for example, when comparing data among the ‘country groups’ in this study, with averages for LAC.

The overall project involves several interconnected activities, including:

- Identification of information requirements and the current knowledge and institutional gaps that need to be addressed in order to strengthen research capabilities for delivering evidence-based policy recommendations
- Strengthening the research capacities of national research centers in relatively small countries in the region, through mentoring and technical guidance throughout the production of research papers
- Knowledge transfer and exchange of research methodologies through peer-review workshops
- Strengthening relationships/links among policymakers, research centers, think tanks and researchers, to share and build on specific models that foster efficiency in public expenditure<sup>8</sup>

Central to achieving the outcomes of the project, and indeed its point of departure, is a ‘mapping/diagnostic’ study that identified actors and issues relevant to research capacity and its contribution to public policy in the 17 countries of focus. This paper provides a synthesis of the three ‘country groups’, and covers:

- The objectives of the ‘mapping’ or ‘diagnostic’ studies
- An overview of the country groups, highlighted major differences and similarities, and the methodology used for the mapping
- The emerging findings from the country groups, in terms of the production of social science research, the use of research by various policy actors, and research priorities based on views expressed by interview and survey respondents. It also flags the knowledge and information gaps encountered
- Conclusions arising from the mapping study, including implications for the next steps in the broader project

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<sup>8</sup> Further information on the project can be found on the GDN website:  
<http://www.gdn.int/html/page11.php?MID=3&SID=24&SSID=81>

## OBJECTIVES OF THE MAPPING/DIAGNOSTIC STUDIES

Three mapping/diagnostic studies were conducted, each covering a different ‘country group’:

- Group 1: Caribbean (Bahamas, Barbados, Dominican Republic, Guyana, Jamaica, Trinidad & Tobago and Suriname) – undertaken by Joseph Hoffman based in Toronto, Canada
- Group 2: South America (Bolivia, Ecuador and Paraguay) – undertaken by Andrea Ordóñez based in Quito, Ecuador
- Group 3: Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) – undertaken by Jorge Benavides, based in Guatemala City, Guatemala

Each mapping study used a common framework and the study team developed a common set of interview and online survey questions to help provide some uniformity in coverage and comparability of findings. Because of cost limitations, site visits and face-to-face interviews were limited and could only be undertaken in one country in each country group (namely, Guatemala, Ecuador and Jamaica). Other countries were covered by a desk study (document review, web searches), email and skype interviews, and the web-based survey developed by the mapping team (ANNEX). This paper integrates the three country group reports into a single ‘Mapping/Diagnostic Synthesis Report’.

Admittedly, this approach is an imperfect way of mapping the research environment in so many countries. The results are inevitably somewhat uneven, and the opportunities for substantive discussions with country actors have been very limited. Nonetheless, the mapping does contribute to an understanding of the social science research environment, as well as provide some insights on how different actors see the need for capacity building and their perceptions of research priorities. Subsequently, the ‘Policy Lab’, organized in Lima in March 2016, provided the opportunity to engage in further discussions with national researchers and policy actors from some of the focus countries and to validate the findings of the mapping studies.

Within each country group, the mapping focused on four areas of knowledge summarized below.

### **Research, Researchers and Research Organizations**

The objective was to develop a picture of the nature of research and researchers in each of the countries of focus, and the variety and types of organizations doing research. Mapping sought to reveal the focus of research attention, where researchers are based (think tanks, CSOs, private sector organizations, government agencies, universities) and their profile (age, gender, education, institutional affiliation, capacity building experiences). In addition, the survey sought information on how research was supported, who drives the demand for research, preferences for different types of professional development, researchers’ experience in policy engagement, and the perceived value of different types of capacity building.

## **Policy Actors and Other Research Users**

The objective was to develop a picture of the current and potential audiences for research – primarily, but not exclusively, in the focus countries. Mapping looked at the audiences for policy-oriented research (policy actors) and their involvement in research demand and funding. It examined views on the quality of research, perceptions of research training and other forms of capacity building – including, but not limited to, research communication, policy engagement and dissemination.

## **Public Expenditure, Health and Education**

The objective was to capture the extent to which research and policy attention has focused on public expenditure analysis generally, and on research specific to health and education in the countries of focus. Mapping sought to compare the level of research attention given to public expenditure analysis and/or service delivery with other areas of research, as well as into the level of interest from policy actors in these areas.

## **Research and Policy Interests and Priorities**

The objective was to determine the similarities and differences in the research priorities of researchers, research organizations and policy actors – including views on what the major areas for policy-oriented research attention should be for the next five years. It sought to obtain perceptions, and the drivers of research priorities, and to understand how research related to public expenditure on education and health is situated among other perceived priorities.

## **Overview of Country Groups**

The mapping looked at the general environment for production and use of social science research in the countries covered in each group. It is important to note that the mapping did *not* assess the quality of research produced by national researchers – except insofar as capturing perceptions of research quality from all survey respondents (including researchers).

As the focus of the project is on research capacity within small countries, the mapping did *not* include research activities undertaken by North American or European organizations and researchers. For example, quite a number of American and Canadian universities undertake research projects or study programs in LAC, but do not expressly engage in building institutional research capacity within these countries. Besides this, some of the research referred to by respondents was supported by regional or international research capacity building initiatives such as the Global Development Network, Latin American and Caribbean Economic Association (LACEA), Partnership for Economic Policy (PEP) and the Think Tank Initiative (TTI).

## **Methodology/Approach Used and Challenges Encountered**

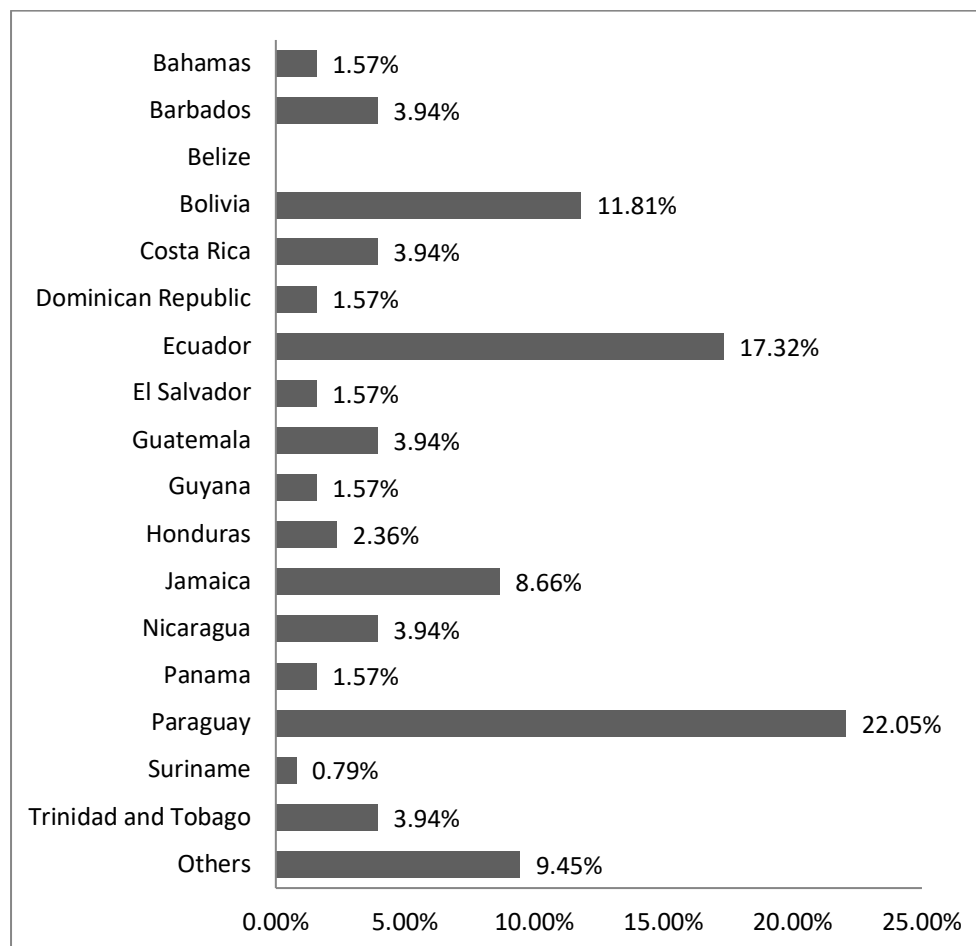
Three activities formed the core of the mapping process:

- A search for any national/regional literature that addresses research capacity development and/or research use

- A survey instrument used by respondents online, on paper, or during interviews with mapping team members
- Key informant interviews conducted in person, or by phone/skype, with a subset of respondents in specific countries

The latter explored, in more depth, issues to do with research needs and use, particularly views on research priorities. The mapping provides a useful picture of the research environment in three main areas: the *production* of research; the *use* of research by various policy actors; and perspectives from both groups on the national research environment and on *research priorities*. The following sections summarize emerging findings in each area, drawing on the desk review, interviews and survey responses. FIGURE 1 below provides a breakdown of respondents across the three country groups. Interestingly, 71% and 58% of respondents from the Caribbean and South American groups, respectively, were women, compared with 32% in the Central American group.

**FIGURE 1: DISTRIBUTION OF SURVEY RESPONDENTS BY COUNTRY (N=133)**



Source: Authors' own calculations from survey responses (ANNEX)

The majority of survey respondents (47%) were researchers; 21% of respondents described themselves as 'users of research working in a government body'; and 7% were 'users of research in a non-government body'. Almost 16% of respondents were

administrators/managers in a research organization (such as a think tank or university). It is important to note that additional policy actors were interviewed as part of the research effort underpinning this report; the responses to interviews are analyzed separately in this report.

Interestingly, in the Caribbean group, very few researcher respondents were affiliated to think tanks, in contrast to the Central America group, where none of the researcher respondents were affiliated to universities (all of them were affiliated to think tanks).

## **COUNTRY GROUP 1 – THE CARIBBEAN (BAHAMAS, BARBADOS, DOMINICAN REPUBLIC, GUYANA, JAMAICA, TRINIDAD & TOBAGO AND SURINAME)**

It is important to note that this was *not* a mapping study of ‘the Caribbean’ as a whole, but rather a selected group of countries within the Caribbean, based on the recommendations of IDB staff.

As noted in the introduction, this group includes **Bahamas, Barbados, Dominican Republic, Guyana, Jamaica, Trinidad & Tobago, and Suriname**. Though neither Guyana nor Suriname are island states, the study team felt that they had a greater affinity to the countries in the Caribbean group than to either of the other country groups. Only Jamaica was visited for the purposes of the mapping study because it is one of the largest countries in the group and somewhat of a regional ‘hub’; and because of the team member’s familiarity with the research and policy communities in that country.

The Caribbean country group covers an extraordinary geographic space. The two countries furthest from each other (the Bahamas and Suriname) are roughly 3,270 km apart. Only two of the seven countries have a contiguous border (Guyana and Suriname), with the remainder being island nations. The group includes one half of the only island in the world that is shared between two sovereign states (the Dominican Republic and Haiti) that do not also have territory elsewhere. Three major national languages are used (English, Spanish and Dutch) across the seven countries.

Many countries within the group have significant institutional linkages in governance (e.g., the Caribbean Public Health Agency – a new single regional public health agency); in policy, trade and regional integration (e.g., the Caribbean Community – CARICOM); and in higher education and research (e.g., the Tropical Agricultural Research and Higher Education Center, the University of the West Indies, and the Caribbean Academy of Sciences).

### **Major Differences/Similarities Across the Caribbean Country Group**

Despite some very obvious similarities (six of the seven countries are in the ‘high human development’ grouping of the UNDP’s Human Development Index) and many shared interests (e.g., the impacts of climate change, ocean and coastal management, trade and regional integration), the country group is by no means homogenous.

According to the 2014 HDI, the global country rankings range from a high of 51 (Bahamas) to a low of 121 (Guyana) – which is one rank lower than Iraq. The rankings for Barbados and Trinidad & Tobago are reasonably close (59 and 64 respectively), as are the rankings for Jamaica, Suriname and the Dominican Republic (96, 100 and 102 respectively).<sup>9</sup>

The selection of World Bank World Development Indicators (WDI) for 2014 provided in TABLE 4 below, highlights the similarities and differences across the country group. For

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<sup>9</sup> Bracketing these countries are Albania (at 95) and the Maldives (103); the latter falls into the HDI’s ‘medium human development’ group, which includes Guyana.

example, the Dominican Republic has a population of 10.4 million people, compared to four countries with a population close to or significantly below 0.75 million.

**TABLE 4: SELECTED WDI INDICATORS (2014)**

Countries & Indicators	Bahamas	Barbados	Dominican Republic	Guyana	Jamaica	Suriname	Trinidad & Tobago
Total Population (millions)	0.36	0.28	10.41	0.76	2.72	0.54	1.35
GNI per capita (PPP\$)	22.29	14.83	12.60	7.29	8.49	16.13	26.08
Life expectancy at birth (in years)	75	75	73	66	73	71	70
GDP growth (annual %)	1.0	0.2	7.3	3.8	1.3	2.9	1.6
Agriculture: value added (% of GDP)	2	2	6	18	7	7	1
Industry: value added (% of GDP)	21	14	27	35	21	49	57
Services: value added (% of GDP)	77	84	67	46	73	44	43

Source: World Bank (2016), World Development Indicators

The most apparent differences across the group are in GNI per capita. The Bahamas' GNI per capita is three times that of Guyana's; similarly, the GNI per capita of Trinidad & Tobago is more than three times that of Jamaica. Other differences of note are that Guyana's 'agricultural value added' (% of GDP) is three times that of the Dominican Republic, and almost three times that of Jamaica and Suriname. Guyana has by far the largest agriculture sector (18% value added), and is well above the LAC average of 5% of GDP agricultural share (for 2014). Only Guyana, Trinidad and Tobago, and Suriname have 'industry value added'



that is higher than the LAC average of 30% of GDP. In contrast, Trinidad and Tobago's value added in agriculture as a percentage of GDP is only 1%.

The project has a particular interest in public expenditure on health and education. TABLE 5 provides a comparison of WDI expenditure indicators, which is illuminating, though less so for education, for which only data on half the country group is available.

It is not unreasonable to infer a correlation between a country's expenditure on tertiary education and its research capacity, whether this includes research done within universities or outside universities by graduates. The data in TABLE 5 below clearly indicates that Guyana's expenditure on education (tertiary education and total education expenditure as a percentage of total government expenditure) is significantly lower than the other available comparators in the group.

**TABLE 5: SELECTED WDI EDUCATION AND HEALTH EXPENDITURE INDICATORS (2013)**

Countries & Indicators	Bahamas	Barbados	Dominican Republic	Guyana	Jamaica	Suriname	Trinidad & Tobago	LAC
<i>Education (2013 except where noted)</i>								
Tertiary expenditure per student (% of GDP per capita)	---	52.4	---	14.5	40.1	---	---	---
Government expenditure - education (% of GDP)	---	5.6 (1999)	3.7	3.2	6.3	---	---	---
Government expenditure - education (% of total Govt. expenditure)	---	13.7	20.6	10.3	20.6	---	---	---
<i>Health (2013)</i>								
Public health expenditure (% of total public expenditure)	44.0	61.0	52.2	66.2	57.2	70.8	48.0	52.7

Health expenditure per capita (PPP\$)	1688	1060	631	426	512	744	1663	---
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Source: World Bank (2016), World Development Indicators.

For public expenditure on health (as a percentage of total public expenditure), the Bahamas and Trinidad & Tobago are below the LAC average, while Suriname is significantly above.

Regrettably, there is, as yet, no global or regional index of research capacity. However, a sense of the policy/research environment can be inferred from the selection of WDI and Scopus indicators provided in TABLE 6 and TABLE 7 below. TABLE 6 provides indicators related to internet use/access, scientific and technical journal publications, and national statistical capacity, each of which contributes to the policy/research environment within each country and across the group.

**TABLE 6: SELECTED WDI 'RESEARCH' RELEVANT INDICATORS**

Countries & Indicators	Bahamas	Barbados	Dominican Republic	Guyana	Jamaica	Suriname	Trinidad & Tobago	LAC
Individual internet use (% of pop)	72.0	73.0	45.9	35.0	37.1	37.4	63.8	43.9
Internet affordability (fixed broadband \$/month)	30	43	21	24	26	41	12	21
Science & technical journal articles	3	16	9	3	51	1	60	19.13
Overall level of statistical capacity (scale 0-100)	---	---	78.9	58.9	78.9	63.6	62.2	76.5

Source: World Bank (2016), World Development Indicators<sup>10</sup>

Three countries (Guyana, Jamaica and Suriname) are below the LAC average for internet use. In terms of internet *affordability*, the cost of broadband in Trinidad & Tobago is

<sup>10</sup> Information Society (2013), Science and Technology (2011) and Statistical capacity (2014)

significantly lower than in other countries in the group; it is the only country which is below the LAC average.

The WDI scientific and technical journal indicator does *not* include social science publications.<sup>11</sup> However, scientific research is nonetheless a potential contributor to national policy and is indicative of a country's research environment. The significantly higher outputs from Jamaica and Trinidad & Tobago (and to a lesser degree Barbados) could be attributed to the University of the West Indies (UWI), the largest university in the country group, which has campuses in all three countries.

Statistical capacity is a good indicator of research capacity because it is a fundamental enabler of many types of research. Statistical capacity has recently come under sharp focus in relation to the need for data associated with the post-2015 Development Agenda and the Sustainable Development Goals (SDGs). Only the Dominican Republic and Jamaica are above the LAC average for overall levels of statistical capacity.

TABLE 7 below focuses specifically on *social science* research in the LAC region, drawing on the Scimago Journal & Country Rank portal, which includes journal and country scientific indicators developed from information in the Scopus database. It includes *all* subject categories for social science research (although Scimago does not include economics under social sciences).

Among Latin American and Caribbean countries, Trinidad & Tobago, Jamaica and Barbados stand out, and follow a similar pattern to the WDI scientific and technical journal indicators – likely for the same reasons noted above.

**TABLE 7: SOCIAL SCIENCE PUBLICATION INDICATORS\***

	2013		1996-2014	
	Country Ranking	Published Documents	Country Ranking	Published Documents
Bahamas	27	6	26	47
Barbados	15	28	16	216
Dominican Republic	22	8	22	82
Guyana	29	5	21	90
Jamaica	12	52	11	541
Suriname	40	1	41	10
Trinidad & Tobago	13	52	10	550

\*All subject categories

Source: Scimago journal and country rank<sup>12</sup>

<sup>11</sup> This indicator includes articles published in the following fields: physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering and technology, and earth and space sciences.

<sup>12</sup>[http://www.scimagojr.com/countryrank.php?area=3300&category=0&region=Latin+America&year=2013&order=it&min=0&min\\_type=it](http://www.scimagojr.com/countryrank.php?area=3300&category=0&region=Latin+America&year=2013&order=it&min=0&min_type=it)

TABLE 8 looks specifically at three areas of research publication of interest to this project. For all three areas, Jamaica, Barbados and Trinidad & Tobago remain the highest ranked, except for health research, where the Dominican Republic's ranking moves above that of Barbados. Guyana's rankings in economics and education are broadly consistent with the indicators in TABLE 5; in comparison, its health publication ranking is considerably lower.

**TABLE 8: RANKINGS IN SELECTED 'SOCIAL SCIENCES' PUBLICATION (1996-2014)**

	ECONOMICS, ECONOMETRICS & FINANCE		HEALTH		EDUCATION	
	Country Ranking	Published Documents	Country Ranking	Published Documents	Country Ranking	Published Documents
Bahamas	36	2	29	3	19	18
Barbados	11	77	23	8	15	35
Dominican Republic	18	23	19	19	31	4
Guyana	21	13	30	3	22	14
Jamaica	9	89	12	29	10	113
Suriname	38	2	33	2	-	-
Trinidad & Tobago	12	75	8	38	9	127

*Source:* Scimago journal and country rank

## COUNTRY GROUP 2 – SOUTH AMERICA (ECUADOR, BOLIVIA AND PARAGUAY)

The sub-selection of countries in South America includes Bolivia, Ecuador and Paraguay. These three countries share similar characteristics. With the exception of Guyana, Suriname and Uruguay, these three countries are the smallest in South America.<sup>13</sup> The selected countries also generally have poorer development indicators than the rest of the region, and more multicultural populations.

TABLE 9 summarizes some of the key indicators on population, public spending on social sectors and key social outcomes. All the countries' social expenditures are below 15% of GDP. Similarly, these countries have some of the lowest levels of social expenditure per capita. By 2013, social spending reached an average of US\$ 1,155 per person for the region, while for Bolivia it remained below US\$ 200, and for Ecuador and Paraguay it was still under US\$ 500 per person. This obviously limits the capacity of the state to carry out policies for improving social outcomes, particularly when compared to the richer countries in the region.

**TABLE 9: SUMMARY OF COUNTRY INDICATORS**

	Bolivia	Ecuador	Paraguay
Population	11 million	16 million	7 million
Poverty Rate	36.3%	33.6%	40.7%
Inequality (Gini Coefficient)	0.47	0.48	0.52
Education Spending (% of GDP)	6.4%	4.4%	5%
Health Spending (% of GDP)	6.1%	7.5%	9%
Elementary School Enrolment	81.6%	95%	81.9%
Secondary School Enrolment	71.6%	83.5%	62.6%
Infant Mortality (Per 1000 Children Born Alive)	30.6	18.4	17.5

Source: CEPALSTAT (2016) Country Profiles, 2015

The sub-selection of countries, like the rest of the region, show a long-term trend for pro-cyclical spending on social sectors. They were able to increase spending during years of high commodity prices, but are now experiencing a reduction in social spending. While many

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<sup>13</sup> Although, for the purposes of this study, Guyana and Suriname are part of the Caribbean country group, geographically-speaking they are part of South America.

countries were able to introduce counter-cyclical policies during the 2009 crisis, the scenario for 2015 and onwards is not as favorable as conditions seem more long-term than in the previous period.

In this context, countries in the region face the specific challenge of turning their social investments into highly efficient and effective programs. It is important to note that the economic slowdown will not only affect the general fiscal space for social spending in the region, but also the income of the poorest households. Indirectly, this will additionally affect social outcomes by forcing children and the youth into the labor market, or by reducing out-of-pocket spending on health and nutrition.

To explore how policy research activities can support countries in facing these challenges, the analysis focuses on exploring research production, the demand for research and the main research priorities for each country.

### **Major Differences/Similarities Across the South America Country Group**

Latin America lags behind other regions in terms of the number of researchers, budget allocations for research and the number of publications in international journals.

The sub-selection of countries has a low proportion of researchers in relation to its economically active population (TABLE 10). They all have less than one researcher per 1,000 workers, with Paraguay having the least (as of 2012), followed by Bolivia (as of 2010) and then Ecuador (as of 2011). These indicators are significantly lower than for other countries with better established research systems such as Argentina (3.02) and Brazil (1.48).

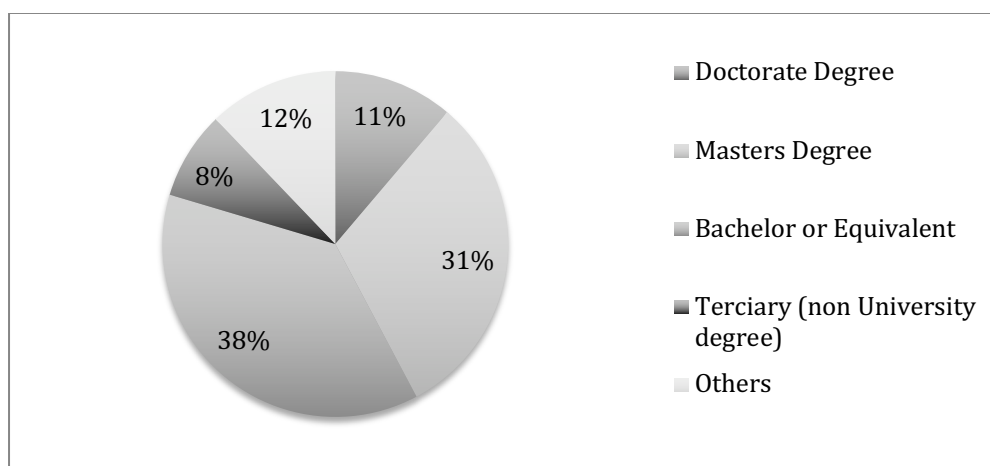
**TABLE 10: FULL TIME RESEARCHERS PER 1000 WORKERS**

Researchers per 1000 of EAP (EJC)	
Bolivia	0.35
Ecuador	0.42
Paraguay	0.34
Argentina	3.02
Brazil	1.48

*Source:* Red de Indicadores de Ciencia y Tecnología (RICYT)

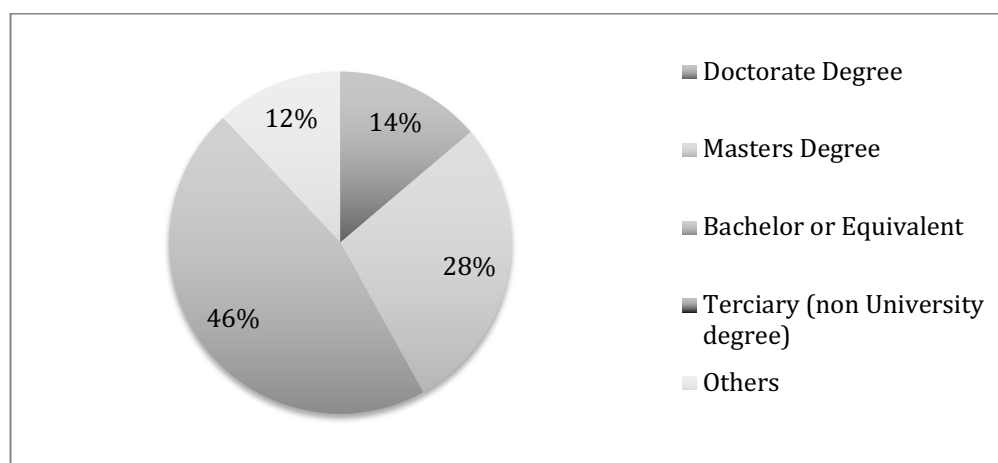
In terms of education levels, the majority of researchers only have a bachelor's degree; roughly a third have a master's degree; and between 11% and 14% have a doctorate. This is substantially lower than other countries such as Chile, where 46% of researchers hold a doctorate. FIGURE 2, FIGURE 3 and FIGURE 4 (below) contrast the academic status of researchers in Bolivia, Paraguay and Ecuador.

**FIGURE 2: RESEARCHERS BY LEVEL OF EDUCATION (BOLIVIA), 2010**



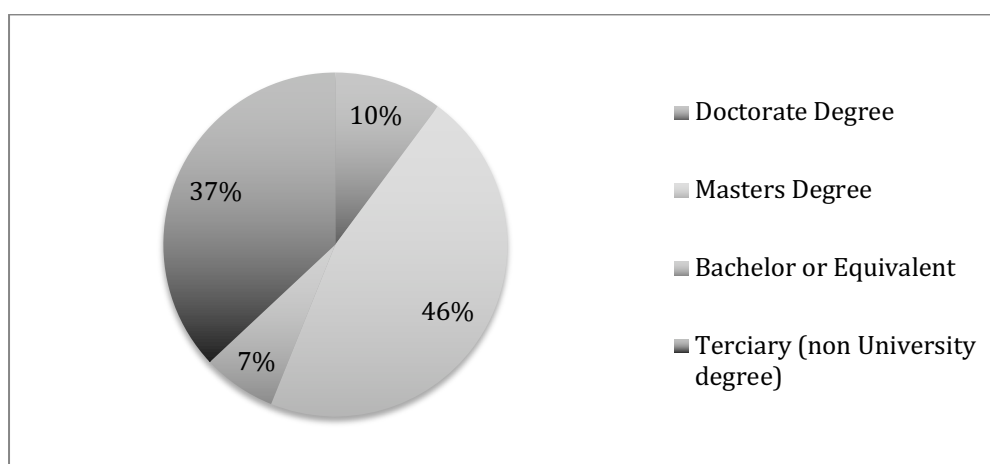
Source: Red de Indicadores de Ciencia y Tecnología (RICYT)

**FIGURE 3: RESEARCHERS BY LEVEL OF EDUCATION (PARAGUAY), 2011**



Source: Red de Indicadores de Ciencia y Tecnología (RICYT)

**FIGURE 4: RESEARCHERS BY LEVEL OF EDUCATION (ECUADOR), 2011**

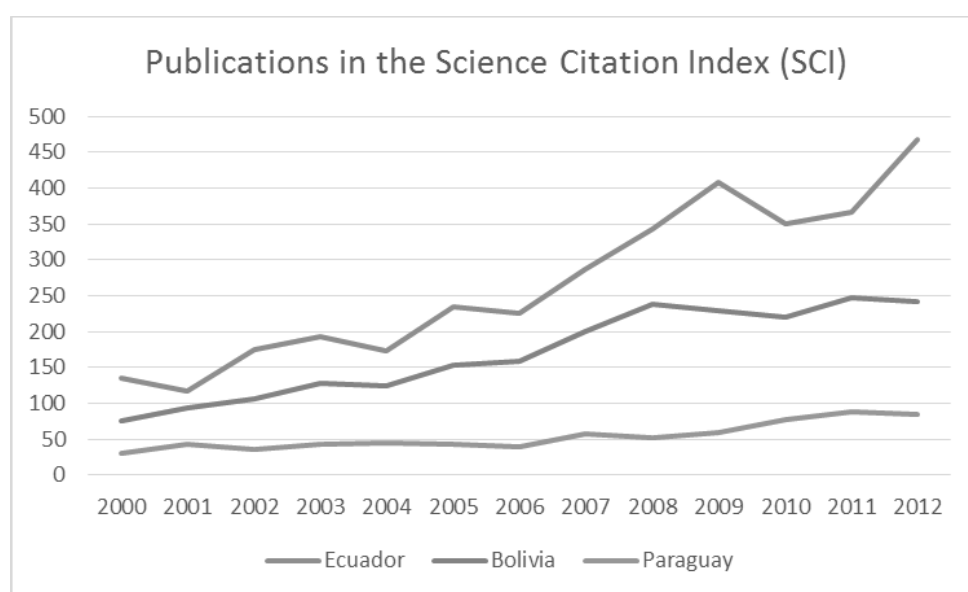


Source: Red de Indicadores de Ciencia y Tecnología (RICYT)

In terms of investment in science and technology, the three countries are also below the regional average (0.74% of GDP): Ecuador invests 0.4% of its GDP, Paraguay 0.35%, and Bolivia 0.2% (UNESCO, 2015). It is important to note that the researchers in the three countries that participated in the interviews all noted that public funding for research focuses mainly on science, technology, engineering and mathematics (STEM), and not on the social sciences.

As a result of the lack of investment, the number of research publications published in journals recognized in international indexes such as the Science Citation Index (SCI) remains low – as illustrated in FIGURE 5 below. The production of research and the productivity of researchers are much lower than in other countries in the region.

**FIGURE 5: PUBLICATIONS IN THE SCIENCE CITATION INDEX (ECUADOR, BOLIVIA, PARAGUAY)**



Source: Red de Indicadores de Ciencia y Tecnología (RICYT)

This general overview shows that the three countries are faced with low levels of investment and a lack of capacity for research. Although (as will be discussed in the following sections) there are some isolated examples of promising researchers and research centers, the knowledge systems of these countries are, for the most part, weak.



## **COUNTRY GROUP 3 – CENTRAL AMERICA (BELIZE, COSTA RICA, EL SALVADOR, GUATEMALA, HONDURAS, NICARAGUA, PANAMA)**

Central America is a vast territory, covering a surface area of more than 522,000 km<sup>2</sup>, with a population of approximately 46 million people (2015). With its seven countries, this region is the bridge between South America, North America and the Caribbean.

The socioeconomic conditions of the region cannot be ignored, particularly the common historical and cultural heritage. The countries in the isthmus share the same language (Spanish is the official language in six of the seven countries; the exception being Belize) and are considered part of the middle-income group of countries – more than USD 8,500 per capita, PPP, current prices (World Bank).

Political relations between the countries are friendly and open, and all of them have regular democratic elections and presidential systems of government. Even though each country has its own distinct foreign policy, there are examples of integration, such as the Central American Free Trade Agreement with the United States and the EU-Central America Association Agreement.

These countries are commonly considered a homogeneous group (with the exception of Belize, which is classified as part of the Commonwealth or is included as part of the Caribbean). It is not difficult to identify regional shared interests related to development issues.

Finally, there still exist significant challenges in the fight against poverty in these countries, as reflected in the lack of progress toward (previous) MDG indicators. Education and health continue to be considered priorities by all governments across the country group. However, the lack of program continuity, impact evaluations, cost and benefits estimations, and participation of beneficiaries will continue to be challenges in the coming years.

### **Major Differences/Similarities Across the Central America Country Group**

Given the shared characteristics of countries in this group, it is not surprising that there are many similarities in terms of research – such as a lower rate of female participation in research (according to UNESCO (2015), women spending less time in education than men in Central America), an emphasis on poverty-related research, and the reliance on international references (such as IDB and World Bank databases) for conducting comparative analyses. In addition, it is interesting to note that the majority of researchers are economists and political scientists, with roughly five to eight years of experience (including the period of their master's degree).

There are also other less evident similarities. Even though in the last ten years, research has focused mainly on poverty and development economics (safety nets programs, direct subsidies and rural production schemes), respondents identified a growing interest in issues such as educational attainment, health and nutrition, employment and the quality of public spending. Gender issues, environment, agriculture and governance are topics which are now beginning to appear on research agendas.

As part of developing ‘research capacity’, many of the respondents reported increased participation in meetings at the regional and national level, enabling access to collaborative global and regional networks.

Finally, responses from the interviews suggest that there is an increased tendency to use more sophisticated methods for developing economic analysis in the region, such as multivariable regressions, case studies, scenario analyses, multiannual budgetary projections and cost-effectiveness comparisons.

However, many more differences were acknowledged. One of the important differences is in the way budget priorities are defined by governments, and the share of the budget assigned for national development commitments.

Using the most recent available data on education and health budgets, TABLE 11 illustrates this point. According to these figures, Belize, Guatemala and Honduras prioritize the education sector, both in the allocation of funds as a share of government expenditure and as a share of GDP. In contrast, El Salvador, Nicaragua, Costa Rica and Panama prioritize the health sector. Leaving aside the relative comparisons, in absolute terms there are great differences in terms of per capita expenditure for both the education and the health sectors.

In addition to the budgetary data, there are other important differences worth mentioning. Researchers from the different countries report that the use of research by policymakers varies depending on the propensity of government officials to collaborate with research institutions. Think tanks from Guatemala, El Salvador and Costa Rica have a closer relation with political parties and government authorities. In contrast, there is limited interest in research by think tanks from policymakers in Honduras, Nicaragua and Panama. This is evident in the very low number of citations of research documents by politicians and policymakers – in public presentations of government plans and strategies, or in the implementation of general guidelines for socioeconomic policies. The evidence is not conclusive, however, and is only based on responses from the interviews.

**TABLE 11: COMPARATIVE LEVELS OF PUBLIC EXPENDITURE (CENTRAL AMERICA COUNTRY GROUP), 2014**

Countries & Indicators	Belize	Guatemala	El Salvador	Honduras	Nicaragua	Costa Rica	Panama
Education expenditure (% of GDP)	6.62%	2.85%	3.42%	5.86%	4.39%	6.87%	3.29%
Education expenditure (% of govt. expenditure)	23.05%	20.64%	15.87%	19.23%	22.75%	21.02%	13.02%
Education expenditure per capita (\$, PPP, current prices)	\$561.9	\$214.2	\$272.7	\$258.7	\$210.6	\$986.9	\$677.9
Health expenditure (% of GDP)	3.39%	2.42%	4.63%	4.28%	4.49%	7.40%	4.93%
Health expenditure (% of govt. expenditure)	15.07%	18.63%	22.52%	18.23%	29.27%	27.35%	21.28%
Health expenditure per capita (\$, PPP, current prices)	\$287.7	\$181.8	\$369.7	\$189.1	\$215.1	\$1,063	\$1,014

Source: World Bank (2015), World Development Indicators, 2014

The information TABLE 12 details the number of scientific publications and citations from documents published between 1996 and 2014. Although the figures do not reveal anything about the influence that researchers and research institutions from the region have on policymaking, they demonstrate a lack of research capacity, particularly in terms of producing scientific knowledge for publication in internationally recognized journals. This represents a significant challenge to gaining recognition from policy actors.

**TABLE 12: SOCIAL SCIENCES PUBLICATIONS AND CITATIONS (CENTRAL AMERICA COUNTRY GROUP), 1996-2014**

Country	Rank /239	Documents	Citable docs	Citations
Belize	181	289	266	3,491
Guatemala	128	1,998	1,836	23,799
El Salvador	150	987	918	8,126
Honduras	153	890	851	10,954
Nicaragua	146	1,184	1,124	15,263
Costa Rica	92	8,224	7,812	126,316
Panama	103	4,573	4,310	112,967

Source: Thomson Reuters (2016) *Web of Science - Science Citation Index, 1996-2014*

Finally, there are also important differences in the capacities of researchers. Only Guatemala and El Salvador showed evidence of multidisciplinary teams in research institutions – in some cases involving lawyers, economists, political scientists, anthropologists, sociologists and engineers. Researchers from Panama and Costa Rica commented on the importance of a multidisciplinary approach, but reported a tendency to adopt a more specialized approach, with teams working in silos. Researchers from Honduras, Nicaragua and Belize offered no information on this issue.

It is important to complete this overview with findings from the interviews conducted with regional experts, which point to the fact that Guatemala, El Salvador and Costa Rica are considered to be regional reference points for specialized research, with a considerable production of formal and scientific research that meets international quality standards and requirements. The *Universidad de San Carlos* (Guatemala), the INCAE Business School Honduras, and a number of public and private universities in El Salvador are active in research. Honduras, Nicaragua and Panama, on the other hand, are not considered to be producers of serious research, particularly in terms of budgetary analysis. (No information was available for Belize).

The gap in institutional capacities for research in the public sector is compensated by strong non-university research actors. Think tanks are the main source of research in the region and have gained a degree of recognition from international organizations, such as the University of Pennsylvania's 'Global Go to Think Tank Index Report'.

Even though all the countries in the region are subject to evaluation by different international organizations (the Economist, IDB, the World Economic Forum, and the United Nations, among others), there remain serious gaps in up-to-date and disaggregated information.

A common issue for all seven countries is that government data is shared with international organizations before it is published and made available to the public; providing access to official data for local research actors is not a priority. This is because of commitments to

development aid programs and periodic international evaluations – for example, the HDI, the Global Competitiveness Index, MDG reports (in the past) and the Ease of Doing Business Index.

In terms of budgetary data, information is available, but in most cases its access is regulated by bureaucratic procedures, introduced as part of the recently introduced open data policies and laws – not as part of an institutional arrangement between government agencies and the national research community. Researchers continuously face the challenge of having timely access to disaggregated data in user-friendly formats (institutions do share information but often in pdf format). This has meant that many researchers do only a partial analysis or avoid these kinds of studies.

Finally, the interviews with regional experts identified a disconnect between information supply and demand. Most of the information produced by research institutions is designed to meet the specific requirements of projects or donors, rather than for the purposes of collaborating with government institutions. Similarly, policymakers do not give much importance to studies and analyses made by independent researchers or research institutions, because they are usually more interested in tackling short-term issues rather than the underlying structural causes (which tend to be the subject of research by serious organizations).

To a certain extent, the media has covered the gap in domestic analysis of government data, by putting information out into the public arena through press articles, TV and radio talk-shows, and social media networks.

## PRODUCTION OF RESEARCH

The following sections summarize the emerging findings from all three country reports, based on the survey responses and interviews.

Broadly speaking, research in all the study countries is produced by:

- Researchers in universities, including teaching staff or graduate students working on individual research grants, thesis research or consulting contracts
- Researchers working as part of a university unit, such as an institute or an affiliated think tank
- Researchers working in government bodies
- Researchers working in a non-government research network or in organizations such as think tanks or civil society organizations (CSOs)

The composition of the sample of respondents provides insights into the issues affecting the region and will help qualify the analysis of their responses. The majority of researcher respondents work in either economics or education (45% and 17% respectively), with the remainder working in political science, sociology, health and anthropology. The majority (61%) received their formal graduate research training in a 'Northern' country, 34% in their own country, and 10% in another country in the region.

There are some important differences between the various country groups. For example, in the South American group, most researchers work in economics (44%) and education (30%), with a smaller proportion in other specific areas. The majority are affiliated with a university (50%), while a significant proportion (32%) are affiliated with a think tank or other form of research center. The most common areas of research are poverty, education, economic development, evaluations, health and public expenditure. By contrast, in the Caribbean group, very few researchers are affiliated to think tanks – with the exception of the Dominican Republic, which seems to have more in common with the Latin American set-up.

Across the country groups, researchers' academic qualifications are evenly split between those with doctorates and those with a master's degree (29% and 27% respectively); 15% were doctoral students and 19% master's students. In terms of age groups, 46% are aged between 31 and 40; 27% between 20 and 30; 19% between 41 and 50; and the remainder over 50.

One of the findings highlighted in the Central America group is that more than 70% of the researcher respondents are either master's candidates or only have a master's degree. This highlights the need to give more attention to both academic and non-degree training. Moreover, almost 50% of the interviewees in the Central America group have less than 10 years of experience and are aged between 30 and 40 years old.

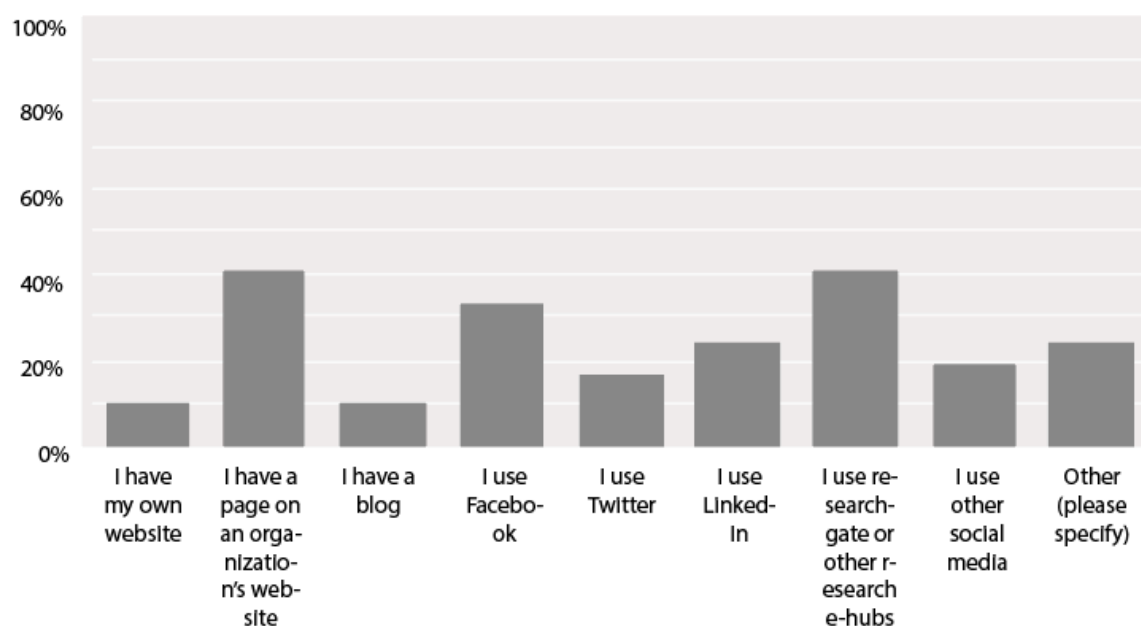
Across all researcher respondents (with the exception of one Emeritus Professor), 24% identified themselves as 'university teaching staff'; 12% each as 'doctoral' or 'masters' candidates (there were no master's candidates among the Caribbean respondents); and 34% reported being affiliated to a 'think tank or research organization'. The proportion of researchers affiliated to a 'think tank' varies significantly across the country groups, ranging from 100% of respondents in the Central American group, to 31% in the South American

group, and 12% in the Caribbean country group – where think tanks are the *least* dominant form of research institution.

Around 41% of researcher respondents reported that they have been involved in six to 10 research projects in the past ten years; with the majority (46%) involved in between one and five research projects in the same period, and 11% in 11 or more research projects. The majority (76%) reported that they were currently involved in research.

FIGURE 6 captures some of the online channels used by researchers to communicate their research. It is interesting to note the relatively low number of people using their own website or blog – almost none of the Caribbean group researchers, compared with around 12.5% of researchers in the other two country groups. However, in the latter two groups, the level of Facebook use is almost half that of the Caribbean group; and only a third reported using researchgate.net or other research e-hubs (in contrast to the Caribbean group).

**FIGURE 6: USE OF WEB-BASED CHANNELS FOR COMMUNICATING RESEARCH (N=43)**



Source: Author's own calculations from survey responses (ANNEX)

It is not clear to what extent Facebook is used expressly for research communication or simply as a social network platform that is only incidentally used to communicate with research colleagues or policy actors.

Researchers were asked to report which areas of research activity they have been involved in over the past 10 years – bearing in mind that many identified more than one area. Within each cluster, the level of attention to each subject area was more or less the same:

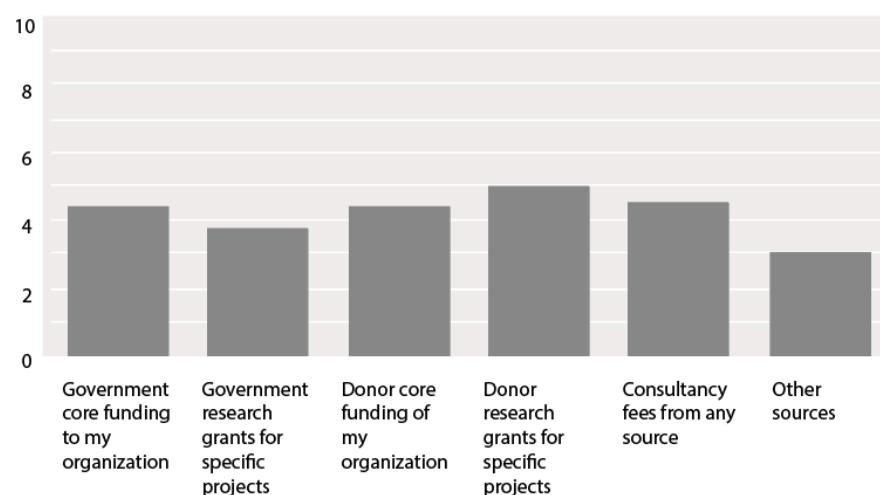
- Poverty, education, and economic development were the most frequently reported subject areas (over 40% each, with poverty research over 50%)
- Health, growth and inequality, and gender studies were the second most reported subject areas (each by slightly more than 30%)

- Similar levels of interest were reported for program evaluation and more rigorous impact evaluation (each by slightly more than 30%)
- The third most popular subject areas included employment/livelihoods, public expenditure and social protection (each over 20%)
- Environmental studies, finance and resource mobilization, microfinance, governance, ICT, agriculture, food security, natural resources, trade and regional integration, and climate change were reported by between 5% and 15% of respondents

Among the ‘other’ research subjects reported were: cultural industries (much more visible in the Caribbean), small businesses and entrepreneurship, population and aging, early childhood, and transparency/open data systems. Neither urbanization nor security were identified as areas of research attention over the past 10 years. It is important to note that these figures refer only to current or past research, and not future research interests or perceived national research priorities.

FIGURE 7 below, provides information on where research funding comes from. Most researchers cited more than one funding source. Underlying the aggregate figures for all country groups are some important variations. For example, in the Caribbean group, donor research grants and consultancy funding are the most important sources (over or close to 60%). In the Central American group, neither government core funding nor government research grants were identified as sources of research financing.

**FIGURE 7: SOURCES OF RESEARCH FUNDING RANKED BY IMPORTANCE (N=43)**



*Source:* Author’s own calculations from survey responses (ANNEX)

These figures are broadly consistent with the findings of the TTI, which notes that with the “limited domestic sources of support at present, international donors are a key source of funding for southern think tanks. Yet that funding is also limited, and is usually intended for specific projects. As a result, most of these think tanks are restricted to carrying out



commissioned research, rather than setting an agenda that responds to local needs.” (Think Tank Initiative, n.d)<sup>14</sup>

A number of responses from individuals in the South American country study illustrate some of the challenges associated with research funding:

- An Ecuadorian researcher, based at a private university, highlighted the difficulties in securing funding from international organizations because of internal bureaucracy; or infirming the government due to the perceived limitations on freedom of thought that this entails.
- A Bolivian researcher, based at a new private university research center, reported that they are now opening a new consultancy to finance their research. This way they can secure funding and support the government with research and data related tasks. Consultancies paid for by international organizations but working for the government, are one of the most common mechanisms. Other centers finance their main activities through international grants.

“The center does not have core funding beyond my salary and a secretary. But with the funds from grants and consultancies we have the chance to hire recent graduates and Ph.D. students. But these short-term funding opportunities do not allow us to maintain staff in the long term.”

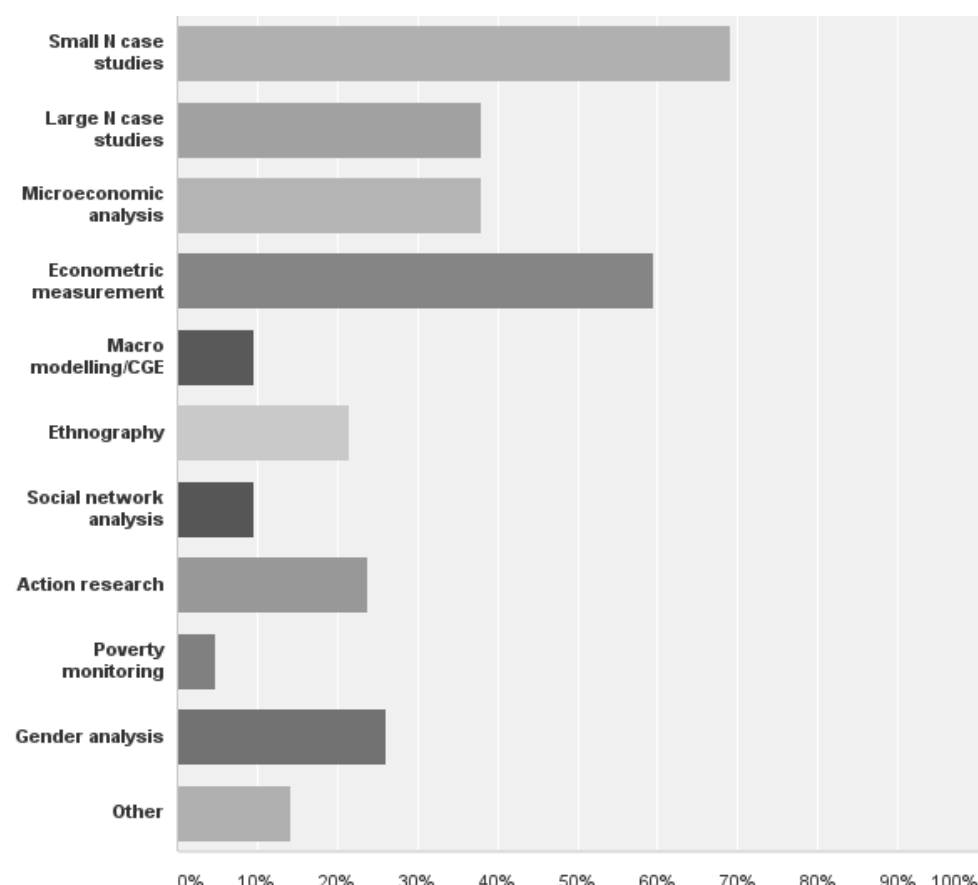
- A Paraguayan researcher, based at a new think tank, reported that funding is primarily through consultancies and international funding, with little funding available from the government.

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<sup>14</sup> TTI supports 11 think tanks in Latin America, 7 of which are in countries covered by this project, although none are from the Caribbean country group. <http://www.thinktankinitiative.org/program/approach>

FIGURE 8 provides information on the different research concepts and methods applied by respondents. Under the 'other' category, researchers identified 'trade law', 'quantitative large-scale surveys', 'qualitative research', and 'SABE survey data collected by PAHO'.<sup>15</sup> Small-N case studies is the predominant methodology used in all country groups, followed by econometric measurement and large-N case studies.

**FIGURE 8: RESEARCH CONCEPTS/METHODS APPLIED BY RESPONDENTS (N=42)**



Source: Authors' own calculations from survey responses (ANNEX)

Of particular relevance to the project are views on research capacity building, including both the types of capacity building activities researchers have *already been involved in* and the types of *future* capacity building that could be of most benefit.

The Latin America findings are broadly representative of the experience in all country groups. It should be noted that only 33% of researchers received training on communication and dissemination, an area that is considered by many as one of the most valuable for research capacity building. This is consistent with the findings on the communication

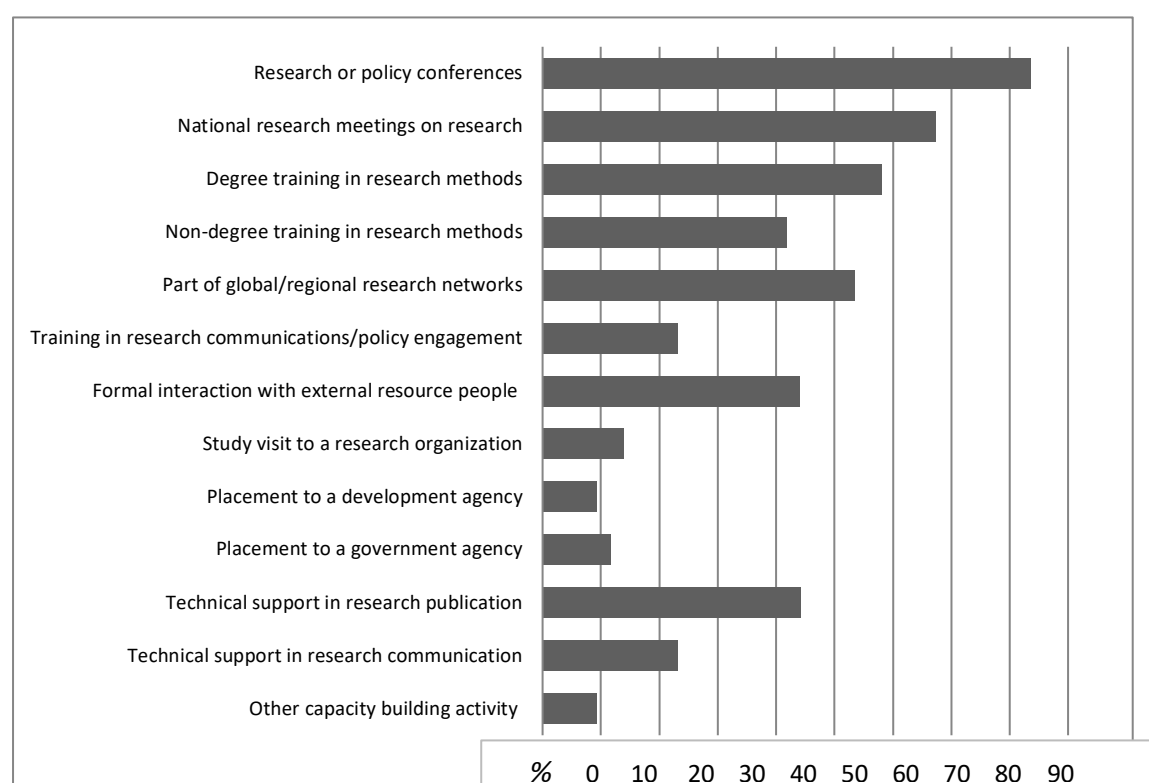
<sup>15</sup> SABE (2000). The survey on Health, Well-Being, and Aging in Latin America and the Caribbean (Project SABE) was conducted during 1999 and 2000 to examine health conditions and functional limitations of persons aged 60 and older in Argentina, Barbados, Brazil, Chile, Cuba, Mexico and Uruguay, with a special focus on persons over 80 years of age. It was conducted by the Pan-American Health Organization (PAHO).

strategies that researchers use. Most rely on their institutional websites (43%), or other academic sites (32%), with limited use of 2.0 media.

In the Caribbean group, very few researchers have the opportunity to participate in non-degree, research capacity-related training (i.e. in research communication, conceptual and methodological training, or more generic skill training such as survey design). One government-based researcher noted that the only training opportunities they were aware of which include some element of capacity building were associated with grant schemes like PEP or other research networks.

FIGURE 9 below, illustrates this point. Participation in ‘non-degree training in research methods’, and ‘formal interaction with external resource people’<sup>16</sup> is considerably lower in the Caribbean group (28% for each), compared to 46% for each in the other two country groups (not shown in this chart). Aside from participation in research or policy conferences (83%), the most popular type of research capacity building activity was involvement in national research meetings, degree training in research methods and involvement with global or regional research networks.

**FIGURE 9: PERSONAL INVOLVEMENT IN TYPES OF RESEARCH CAPACITY BUILDING (CARIBBEAN GROUP) (N=43)**



Source: Authors' own calculations from survey responses (ANNEX)

It is interesting to compare *past* involvement (above) with the rating of ‘activities according to how valuable they are or could be to you as a researcher’:

<sup>16</sup> Provided by research funders or networks

- The capacity building activities most cited as being very valuable are ‘non-degree training in research methods’ and ‘degree training in research methods’ (66% and 62% respectively).
- This was followed by ‘participation in research or policy conferences/annual meetings’ and ‘participation in global/regional research networks’ (55% each). ‘Regional or national research meetings’ were seen by less than 50% as very valuable, although for the Caribbean group this figure was closer to 75%.
- 42% reported that ‘placement<sup>17</sup> to a government agency’ would be of little or no value. By contrast, ‘study visits to a research organization’ were seen by 68% as being very valuable, or of some value – even though only 12% reported having participated in this kind of activity before.
- 47% indicated that ‘technical support in research publication (papers, articles, books)’ would be very valuable, although 17% saw this as being desirable but not necessary.
- By contrast, only 37% saw ‘technical support in research communication (policy briefs, media training, presentation skills, etc.)’ as very valuable. Again, the differences between country groups are significant. For example, only 12% of researchers in the Caribbean group ranked ‘publication support’ as very valuable, (although 37% in the same group identified support for “research communication” as very valuable).

Researcher respondents identified an interesting range of additional training or professional development they would like to have access to, including, but not limited to: cost-benefit analysis, survey design, Computable General Equilibrium (CGE) models, geocoding, ethnographic methods, labor economics, funding availability and access (fund raising strategies), national level data collection, and multi and mixed methods (the definitions of these are unclear, as the terms are often used interchangeably).

In terms of the perceived value of training/professional development in *research concepts and methods*, researchers identified an interest in almost every method listed in the survey. However, a few stand out either because they were seen as ‘very valuable’ or as ‘not so valuable’ by a significant proportion of respondents:

- ‘Impact evaluation’, ‘survey design and execution’ and ‘data visualization’ had the highest value ratings, with 73%, 61% and 58% respectively perceiving these as very valuable. This was followed by ‘econometric measurement/simulations’ with 56%.
- ‘Macro modeling’ and ‘meta-analysis’ were seen as not so valuable, or not valuable at all, by 34% and 20% respectively.
- 49% saw ‘public expenditure analysis’ as very valuable, although 17% described it as not so valuable or not valuable at all.

‘Political economy analysis’ was identified by one respondent under the ‘other’ category. It would have been interesting to see how respondents would have rated it, had it been included in the list.

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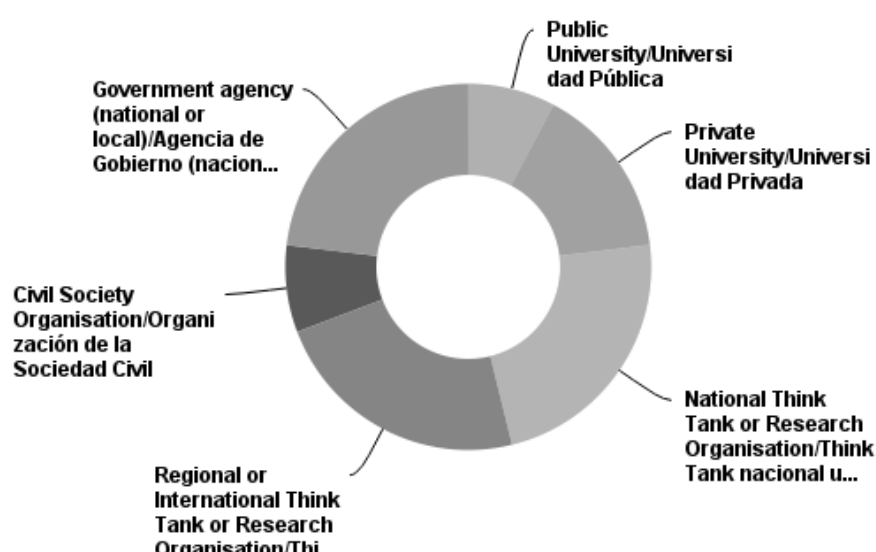
<sup>17</sup> Or temporary assignment

## EMERGING FINDINGS

### Research Organizations

All three mapping studies engaged representatives of research organization, either in interviews and/or as survey respondents. The objective was to understand whether those working as administrators or managers had particular views on the research environment that might be distinct from the perspective of individual researchers, or from users of research. Respondents identified themselves by institutional affiliation, as illustrated in FIGURE 10 below.

**FIGURE 10: TYPES OF RESEARCH ORGANIZATIONS (N=13)**



Source: Authors' own calculations from survey responses (ANNEX)

Bolivian respondents noted that there is significant collaboration between researchers based in think tanks and universities. Researchers based in both types of institutions have a high regard for each other. For example, the *Universidad Privada de Santa Cruz de la Sierra* and *Instituto de Estudios Avanzados en Desarrollo* (INESAD) co-hosted the LACEA Conference in 2015.

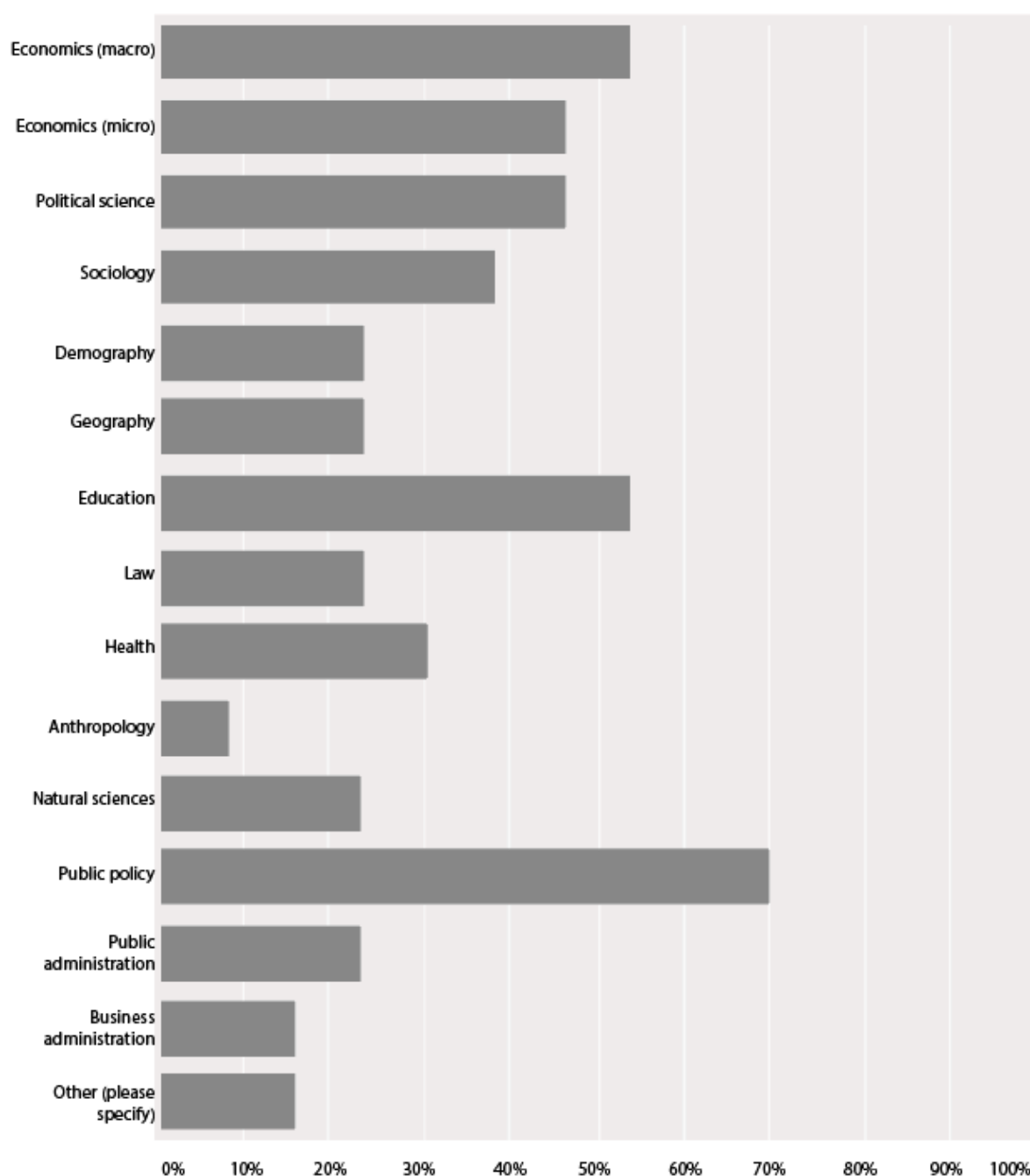
A number of individuals interviewed in the Caribbean group drew attention to the research activities of private sector associations, and the direct and indirect value they add to public policy. The example most frequently cited was a 2014 study on road safety undertaken by an insurance association that offered useful insights on crime, community safety and school access, in addition to its findings on road safety.

The Latin America study highlighted the role of research by CSOs – in contrast to universities, which are seen as having limited capacity to carry out research. It noted that many professors devote most of their time to teaching, and to supplement their salaries many also do other jobs. In this context, the role of policy-oriented research has been taken up by CSOs. These organizations, however, face the challenge of insecure and limited funding, and short-term objectives that do not necessarily accord with a long-term research

agenda. Although some CSOs are think tanks, or other types of knowledge centers, the majority are not primarily involved in knowledge creation.

The two largest groups of respondents (in terms of ‘organizational role’) were executive directors and research directors (38% and 31% respectively). The remainder were evenly divided (roughly 8% each) between research management or staff, communications management or staff, professors, and university research staff. The organizations themselves covered an impressive range of disciplines (FIGURE 11 below).

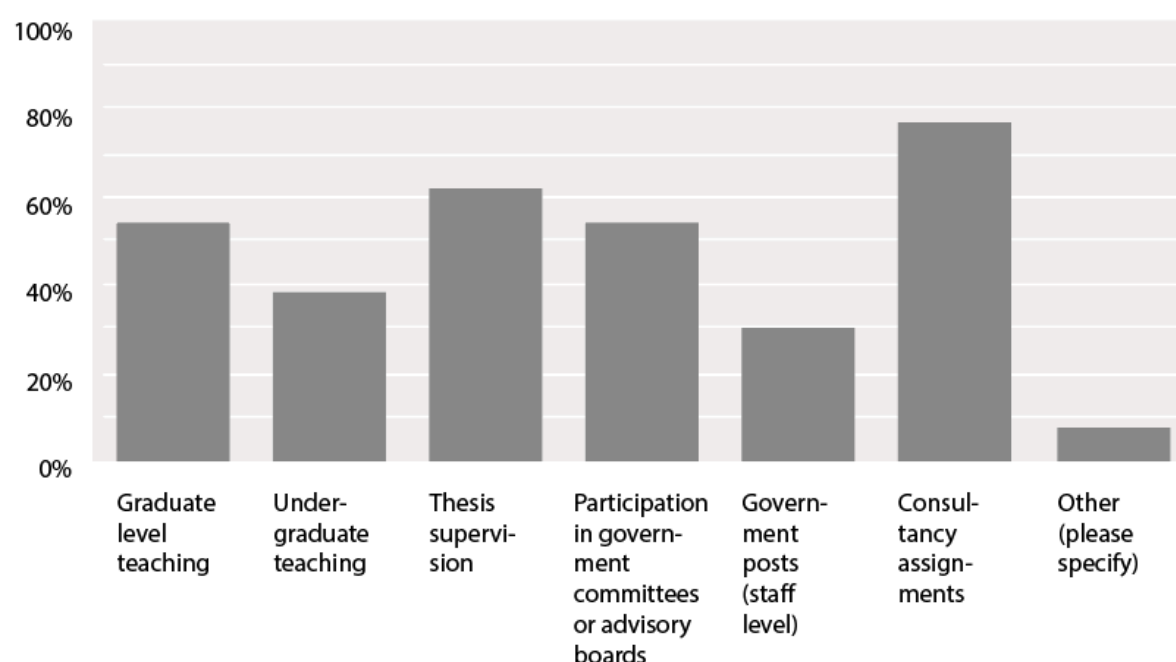
**FIGURE 11: DISCIPLINES COVERED BY RESEARCH ORGANIZATIONS (N=13)**



Source: Authors' own calculations from survey responses (ANNEX)

Not surprisingly, staff of research organizations are engaged in a number of activities in addition to their research work, including a variety of academic roles and involvement in government committees or advisory boards. Particularly noteworthy (FIGURE 12), is the large number (almost 78%) who are also engaged in consultancy assignments.

**FIGURE 12: ADDITIONAL ACTIVITIES OF RESEARCH ORGANIZATION STAFF (N=13)**



*Source:* Authors' own calculations from survey responses (ANNEX)

Roughly half the respondents reported that their organization provided financial support to staff for attending 'external non-degree training courses'. Almost 70% reported that their organization provides leave for such activities, and 23% reported the provision of financial support or paid leave for post-graduate training.

The main sources of funding for organizations (in order of importance) are: government research grants, donor core funding, government core funding and donor research grants. Interestingly, 55% ranked consultancies as the third most significant source of funding. Private endowments and membership fees were the lowest ranked sources – negligible in some countries.

The variety of areas of research undertaken by organizations over the past ten years can be grouped as follows:

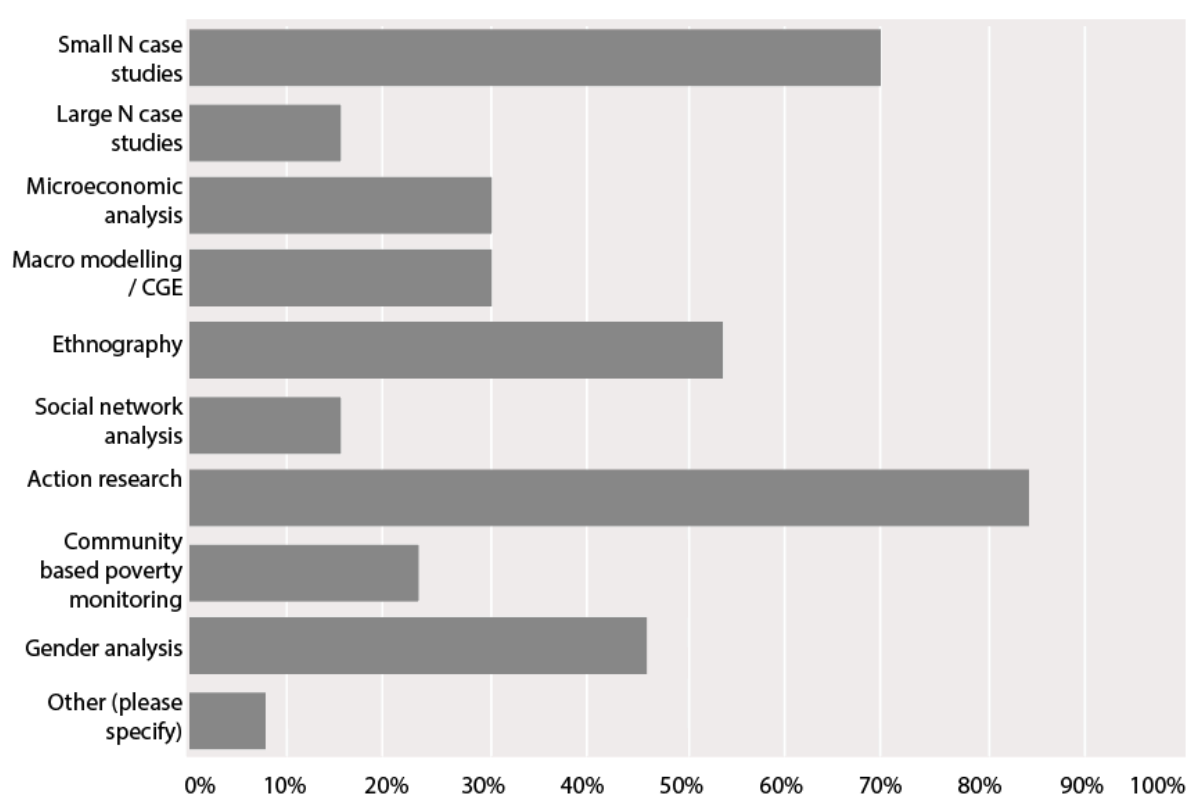
- Education research was the most frequently cited activity (by over 60% of respondents), followed by poverty, health, environment, economic development, growth and inequality, public expenditure, and gender studies (between 50% and 60%)
- Employment/livelihoods, food security, climate change, natural resources, governance, impact evaluation and microfinance were next (between 30% and 50%)

- In descending order, agriculture, finance and resource mobilization, program evaluation, ICT, social protection, trade and regional integration and security (between 10% and 30%)

Most organizations (33%) reported that they had undertaken between one and three research projects in the previous five years, and over 16% reported they had conducted more than 16 research projects in the same period.

In terms of research methods used, the responses reveal the diversity of approaches – as noted in FIGURE 13. Action research was the most popular method, followed by Small-N case studies. (The ‘other’ in FIGURE 13 refers to ‘conflict transformation’).

**FIGURE 13: RESEARCH CONCEPTS/METHODS APPLIED BY RESEARCH ORGANIZATION STAFF (N=13)**



Source: Authors' own calculations from survey responses (ANNEX)

The views of research organizations (or rather the administrators/managers of organizations) on the value of research capacity building differ somewhat from those of individual researchers.

- The three most highly ranked activities (seen as ‘very valuable’) were ‘technical support in research communication (policy briefs, media training, presentation skills, etc)’ (75%), followed by ‘participation in global or regional research networks’ and ‘training and/or technical support/guidance in research communication and policy engagement’ (each with 70%).



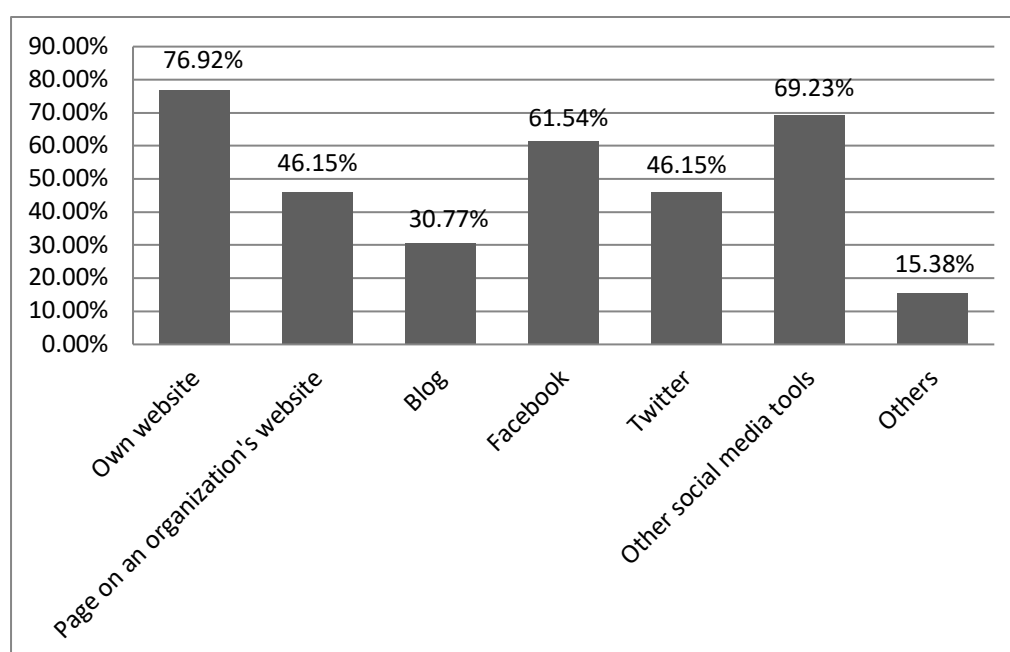
- This was followed by ‘non-degree training in research methods and tools’ and ‘participation in research or policy conferences/annual meetings’ (58% each).

In terms of organizational capacity building, 59% ranked ‘technical advice in fundraising’ either first or second in value. The lowest ranked activities were ‘networking opportunities with similar organizations in other countries’ and ‘use of online tools and resources’.

The apparent ‘nonexistence’ of journals at the national level was noted in relation to capacity needs. In Bolivia, Ecuador and Paraguay, there are very few peer-reviewed academic journals, making it difficult to qualify and organize knowledge within these countries. Many researchers publish abroad or do not publish at all, resulting in a great deal of gray literature that cannot be easily accessed and used. This then results in researchers repeating, rather than expanding, on others’ research.

FIGURE 14 below illustrates the communication channels used by research organizations. Unsurprisingly, a much higher level of website use is reported than by individual researchers. However, while many research organizations have their own websites, relatively few have downloadable or searchable research indexes.

**FIGURE 14: RESEARCH COMMUNICATION CHANNELS USED BY RESEARCH ORGANIZATIONS (N=13)**



Source: Author’s own calculations from survey responses (ANNEX)

Lastly, respondents from research organizations suggested a number of additional priority themes for capacity building, useful for their organizations’ future research interests:

- Multidimensional Poverty and Child poverty
- Research on factors associated with academic achievement at all educational levels, teacher training, the contribution of universities to national development, and the demand and supply of educational programs at universities and technical schools

- Participatory approaches in development
- Placements or temporary assignment to a development agency
- Development, the environment and climate change
- Health and social protection
- Strengthening capacity for writing research grants
- Gender and organized crime prevention, public safety, culture and development
- Impact assessments, economics of climate change
- Management of scientific and technological information for public use
- Professional training in education, online tools for analyzing LAMP databases, TERCE, SERCE, etc.
- Exchanging experiences among governmental organizations in the region on the promotion of science and technology

It is worth noting some general observations on think tanks and universities in the country groups.

The Central America study noted that ‘serious’ think tanks – with researchers with more than 10 years of experience, able to cover a variety of fields of study and engage in professional and scientifically rigorous research – are only found in Guatemala and El Salvador. In the rest of the countries, think tanks and universities are underdeveloped, and produce little in the way of studies and analyses aimed at policymakers and development challenges – with the exception of public universities in Costa Rica.

It also noted that think tanks have been taking on a more prominent public role in recent years. However, in the seven Central American countries, independent research institutions are often categorized as think tanks, NGOs or private research foundations. Although they may have similar objectives and administrative structures, many are founded by private donors, with a substantial share of funds from projects financed by international organizations. As noted later in this report, many of the ‘think tanks’ in the 17 countries are not necessarily engaged in, nor technically capable of, scientifically rigorous research, and are fundamentally advocacy organizations.

Research institutes in the region are not affiliated to political parties and do not feed into public policy proposals – a practice common in the United States and Europe. Instead, think tanks and universities try to influence political parties once they are in power, or when national problems are raised in public debates, and are the subject of media scrutiny. This could be one of the reasons why policy actors rarely appear to take account of proposals put forward by research institutions. Additionally, research institutions tend to be ‘out of sync’ with policymakers’ interests, in part due to outdated information, and in part due to the different interests of donors or financiers of specific projects.

It is worth noting the case of Guatemala and El Salvador, where researchers and representatives from research institutions have expressed a genuine interest in working closely with government agencies, signing cooperation agreements for identifying financing opportunities with international donors. Successful examples of such collaboration include the proposals for the administration of the funds from the Millennium Challenge Account (Fomilenio in El Salvador and PRONACOM in Guatemala), and more recently, the Plan for the Alliance for Prosperity in the Northern Triangle. Both programs, financed by the U.S.

State Department, involve requirements for building local capacities for research and policymaking.

With the exception of university-based institutes, the Caribbean appears to be somewhat of a backwater for think tanks. There are quite a few organizations that refer to themselves as ‘think tanks’, but for all intents and purposes are CSOs. These may, from time to time, use research from other organizations, but mostly engage in issue-specific advocacy or lobbying. The mapping excludes these organizations, unless there is clearly an indication that *doing* research is a core function – loosely defined by TTI as “generating and analyzing credible local data ...[to] enhance public policy debates and promote more objective, evidence-based decision-making” (TTCSP, 2014).

The relative scarcity of think tanks is a key factor that distinguishes the Caribbean country group from the other two groups. It is very difficult to find evidence of think tanks in the Caribbean country group:

- The **Think Tanks and Civil Societies Program** (TTCSP) at the University of Pennsylvania conducts research on the role that policy institutes play in governments and in civil societies around the world. It has developed an “interactive, global, comprehensive, multi-sectoral database and directory of think tanks” (ibid) consisting of over 6,500 think tanks in 179 countries around the world. The directory is difficult to access, and appears to have data on only one think tank in the Caribbean – in the Dominican Republic. TTCSP’s 2013 ‘Global Go To Think Tank Report’,<sup>18</sup> indicates that LAC has 9.7% of the world’s 6,226 think tanks. Its LAC list shows a number of think tanks (without naming them) present in the Caribbean country group: Bahamas 2; Barbados 9; Dominican Republic 28; Guyana 3; Jamaica 6; Suriname 2; and Trinidad & Tobago 10. A search through various sources and by country, suggests nothing close to these numbers, unless one includes CSOs and university departments/institutes. Critics of the TTCSP approach to ranking point out that organizations can essentially self-identify to be included in the listing. The 2014 Global Go to Think Tank Index Report’s listing of the ‘top’ think tanks in Central and South America (which excludes Mexico but includes the Caribbean), lists 50 think tanks, of which 16 are in the study countries – including one that apparently does no research.
- The **Harvard Kennedy School Library**<sup>19</sup> offers a ‘think tank’ search facility. It identifies 48 LAC think tanks, of which 17 are from the countries in this study. Only one from the Caribbean country group is listed: the Nassau Institute (2016), which describes itself as “an independent, apolitical, non-profit institute that promotes economic growth in a free market economy with limited government.” Its website does not identify any research undertaken by the organization.
- **Twitter** provides a directory of LAC think tanks that have Twitter accounts<sup>20</sup> (and does so for other regions as well). The LAC list indicates around 80 think tanks, of which there are at least a dozen from the countries of study, including the *Fundación Global*

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<sup>18</sup> <http://gotothinktank.com>

<sup>19</sup> [http://guides.library.harvard.edu/hks/think\\_tank\\_search](http://guides.library.harvard.edu/hks/think_tank_search)

<sup>20</sup> <https://twitter.com/onthinktanks/lists/thinktankslatinoamerica/members>

*Democracia y Desarrollo* (FUNGLODE) in the Dominican Republic. Many of the bodies listed are policy advocacy networks rather than research organizations, and a number are research networks not necessarily based in LAC.

- The **Atlas Network** (2016), an advocacy organization which aims to “strengthen the worldwide freedom movement by cultivating a highly effective and expansive network” has a ‘global directory’ of partners that includes 74 partners in LAC.<sup>21</sup> The list appears to be a mix of think tanks and CSOs.
- A ‘Think Tank Map’ developed by the **International Center for Climate Governance**,<sup>22</sup> includes a network of organizations whose research activities focus on the design of climate policy and governance. Its website indicates 310 think tanks, although only around 280 are included on its downloadable list. Of these, 17 organizations are from LAC, and 7 are from the Central and South America country groups (none are from the Caribbean, although CaPRI<sup>23</sup> and FUNGLODE did appear in an earlier list, along with a number of university institutes from the Caribbean).

Among the few public universities featuring in international surveys, the University of West Indies is ranked 45<sup>th</sup> for ‘innovative knowledge’ in the 2014 higher education sector in Latin America. The *Universidad de Costa Rica* and *Universidad San Francisco de Quito* are the only other institutions from the project’s 17 countries to appear in the Scimago ranking, at 85 and 156 respectively. All three appear in the 2014 ‘technological impact’ ranking (87, 97 and 96 respectively).<sup>24</sup>

## Research Use by Policy Actors

Research use is a notoriously difficult thing to assess, as many studies on linking research and policy have found. Being able to draw a direct link between a specific piece of research and a particular policy decision is extremely rare. Efforts by many organizations to document evidence of ‘research uptake’, in terms of direct policy influence, have never been particularly conclusive. GDN is currently examining alternative ways of monitoring the societal visibility of research, looking at evidence from print, radio and TV, blogs, web-space and policy literature (consultation papers, policy statements, speeches, sector strategy documents, etc.).

However, it is comparatively easy to identify *potential* audiences of research in the country groups. These typically include: i) government bodies and officials (elected and public service); ii) CSOs and associations, including labor organizations and private sector groups; iii) the media; and iv) other researchers and officials associated with non-government research networks, regional or global think tanks, and development agencies.

Of the ‘policy actor’ survey respondents (which does not include individuals interviewed), the majority (39%) were from a national government ministry (e.g., health, education, justice, social services); 32% were from a central government body (President/Prime

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<sup>21</sup> <https://www.atlasnetwork.org/partners/global-directory/latin-america-and-caribbean>

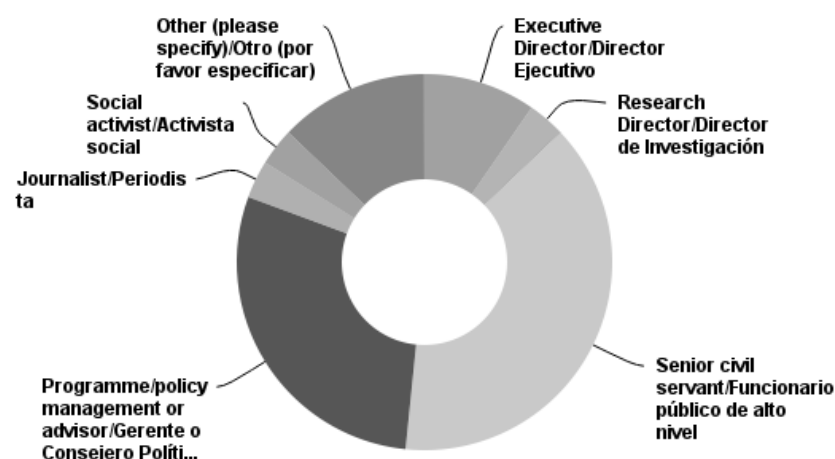
<sup>22</sup> <http://www.iccgov.org/en/observatories/think-tank-map/>

<sup>23</sup> <http://www.capricaribbean.com/>

<sup>24</sup> Scimago Institutions Rankings, Scimago Lab. Data source: Scopus

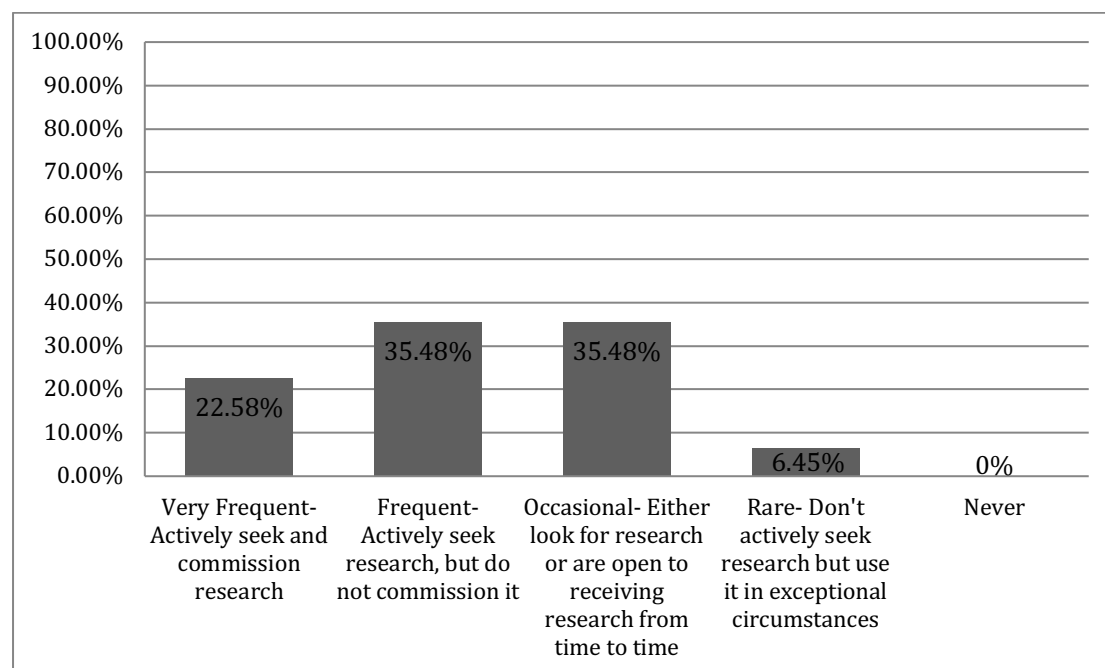
Minister's Office, Cabinet Office/Secretariat, Planning Agency, Finance Ministry, etc.); and the remainder (6% or less for each) from CSOs, the media, local government and other national government bodies (e.g., agencies, boards or commissions). FIGURE 15 below details how respondents described their role in their organization. FIGURE 16 shows the level of research use by policy actors: 22% reported that they make 'very frequent' use of research (actively seek and commission research), and 35% use research on a 'frequent' (actively seek research but do not commission it) or 'occasional' basis, respectively.

**FIGURE 15: POLICY ACTORS' ROLES IN THEIR ORGANIZATIONS (N=31)**



Source: Authors' own calculations from survey responses (ANNEX)

**FIGURE 16: LEVEL OF RESEARCH USE (N=31)**



Source: Author's own calculations from survey responses (ANNEX)

In terms of commissioning, 48% reported that their organization does *not* commission research (paid for by any source). Of the organizations that do commission research, 46%

reported that their organization had commissioned 11 or more research projects in the previous ten years; and 38% had commissioned between eight and ten research projects in the same period. The remainder indicated that they had commissioned between one and seven projects over this period. Of the organizations that commission research, the majority (71%) use both national and non-national researchers, while 28% reported that they only use national researchers.

Policy actors who were aware of their sources of research funding, reported using a variety of sources, with donor commissioned research the most frequently cited source (72%), followed by research supported through a donor-funded research grant scheme (48%). Self-financed research and research commissioned by a government body were the third most cited sources (44% for both). Government research grants appear to be the least cited source (16%).

Several perspectives were offered on the challenges of research use by policy actors (specifically in government). Although the points below summarize the findings from the Latin American group, virtually identical views were heard in the Caribbean and Central America interviews. The quotes below are all taken from interviews conducted in 2015.<sup>25</sup> In essence:

- Policymakers have difficulty reconciling the need for evidence supporting a strategic perspective with their day to day pressures. Policymakers have a lot of requirements they need to fulfill and do not have the time to seek or absorb research on strategic issues.

“Internally, we are trying to do interesting things. We have readings and debates about research. I send my staff readings and materials, but not all have the time or dedication to read them. For example, we discussed Piketty’s Book and began thinking about new tax reforms on inheritance. But there is not enough time to do all this is your nine to five job.”

- Internal knowledge management in public entities is difficult. A lack of organization and coordination in terms of how public officials interact with researchers was widely reported. This results in duplicity in commissioned consultancies, and a failure to make the best use of those that are commissioned.
- The need for prompt responses has led to public organizations carrying out their own research programs instead of collaborating with others.

“In this Ministry we have a lot of requests for what the evidence says. But we usually do not have the time to commission this. We have to do this in-house, which also gives the Minister more confidence.”

“Here we need to carry out consultancies because the research we need is not available out there. We need this information quickly and have no time for long research projects. We do it internally, or hire consultants. But usually these results do not become documents that are available to the public or even other institutions.”

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<sup>25</sup> Interviews were conducted under the Chatham House Rule – to provide anonymity and encourage openness

- The knowledge management system is very fragmented and policymakers report that stakeholders work in silos. Their focus is so specific and narrow that available research cannot respond to it, and has limited impact.

“Coordination between public institutions is another difficulty we face. When it comes to doing research that needs information from other public institutions, it is almost impossible to get it. For example, you see very good research on maternal mortality, even with support from international organizations. But then, if you try to have broader data of mortality in general, this one is very unreliable.”

- Government officials have difficulty setting a meaningful research agenda. Several senior government officials in the Caribbean group noted that it is virtually impossible to have a sense of the range of recent, current and planned social science research at the national or regional level. The data is there, but not organized or accessible.

The research subjects that have been of interest to policy actors over the past ten years can be grouped as follows (bearing in mind that most identified more than one area of research):

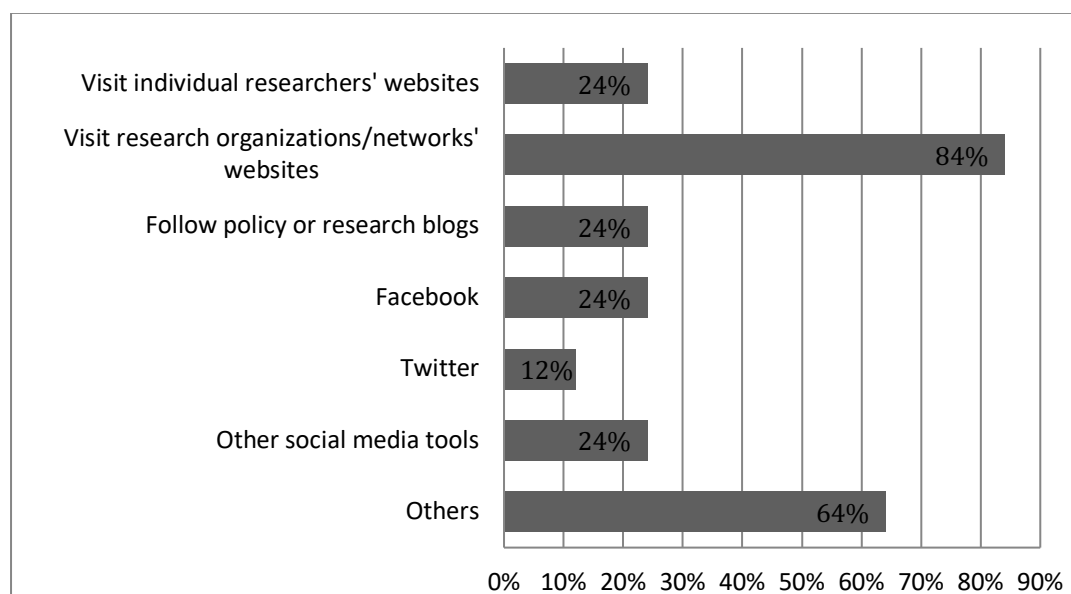
- Health, education, program evaluation and impact evaluation were the most cited subjects (each at roughly 50%).
- Poverty, growth and inequality, public expenditure, social protection, and gender, were the second most cited subjects (each between 30% and 40%).
- The third cluster of subjects included environment, economic development, employment/livelihoods, ICT, food security, climate change and ‘other’ (most between 20% and 30%). ‘Other’ included security/justice, tourism, community policing, natural sciences, human rights and economic modeling.

Finance and resource mobilization, microfinance, governance, urbanization, natural resources, trade and regional integration, and security, were the *least* identified subject areas of interest over the previous 10 years (10% or less). This figure refers only to current or past research interest, *not* future research interests or perceived national research priorities.

When asked when they most recently used research or reviewed research findings, 44% reported that they are currently using research; and 44% reported using research as recently as 2014.

FIGURE 17 provides a picture of how policy actors learn about or access research.

### FIGURE 17: HOW POLICY ACTORS LEARN ABOUT OR ACCESS RESEARCH (N=25)



Source: Authors' own calculations from survey responses (ANNEX)

FIGURE 17 includes research provided by colleagues in other parts of the government; the IDB and other development organizations such as the Overseas Development Institute or the International Development Research Center; web searches; recommendations from personal networks; university contacts; UN agency and environmental organization sites; and Sustainable Development Solutions Network and SDG blogs and websites.

Policy actors had interesting views on the technical quality of research from different sources:

- Almost 72% indicated a high, or reasonable level of confidence in research produced by 'university-based research groups' (i.e. a research institute or think tank that operates within a university).
- 56% reported that research by 'individual university researchers' was of reasonable quality (though only 8% described having a high level of confidence in it).
- 48% rated research by 'national think tanks' as being of uncertain quality, compared to only 16% when it comes to research by 'regional or international think tanks' (8% reported low confidence in the quality of national think tank research).
- The research sources that apparently elicit the most confidence are 'regional or international think tanks or research organizations' – with 44% indicating a high level of confidence in quality, and 40% a reasonable level of confidence.
- For research done by 'CSOs that do or commission research', 48% indicated a reasonable level of confidence but 40% reported an uncertain level of confidence, and 12% a low level of confidence in quality.



- The only research producers that elicited a ‘not confident at all’ response (4%) were ‘private sector organizations that do or commission research’. The majority (52%) indicated uncertain quality or reasonable quality (36%), and none indicated a high level of confidence in research quality, from private sector bodies.
- For ‘government bodies that do or commission research’, 60% expressed a reasonable level of confidence in quality, and 28% were uncertain.
- For research done by ‘donor agencies’, 32% reported high confidence in quality, and 44% reasonable confidence; although 16% reported uncertain confidence and 8% low confidence.

Policy actors were asked their views on ‘the value of capacity building activities that could enhance their use of research’. Several activities stand out:

- ‘Participation in regional or national meetings on research’ was the most highly rated, with 56% seeing this as very valuable.
- ‘Training and/or guidance in commissioning research’ was the second highest (46%), followed by ‘non-degree training to understand the comparative features of different research methods’, and ‘participation in research or policy conferences/annual meetings’ – with 44% respectively seeing these as very valuable.
- Slightly lower in the ratings were ‘training in use of online tools and resources to access research’, and ‘use of external resource persons to provide technical guidance or quality assurance for research’ – each seen as very or somewhat valuable by 37% and 30% respectively (although 39% described the latter as not valuable at all).
- ‘Staff visits or temporary assignment to a research organization’ was seen as ‘not valuable at all’ by 43% of respondents.

Several interesting comments were offered in regard to research use, including the need for:

- Collaboration with planning agencies in other countries
- The development of research governance/coordination strategies
- The development of a national research register (to achieve greater transparency about what research goes on and the associated level of investments and sources of funding)

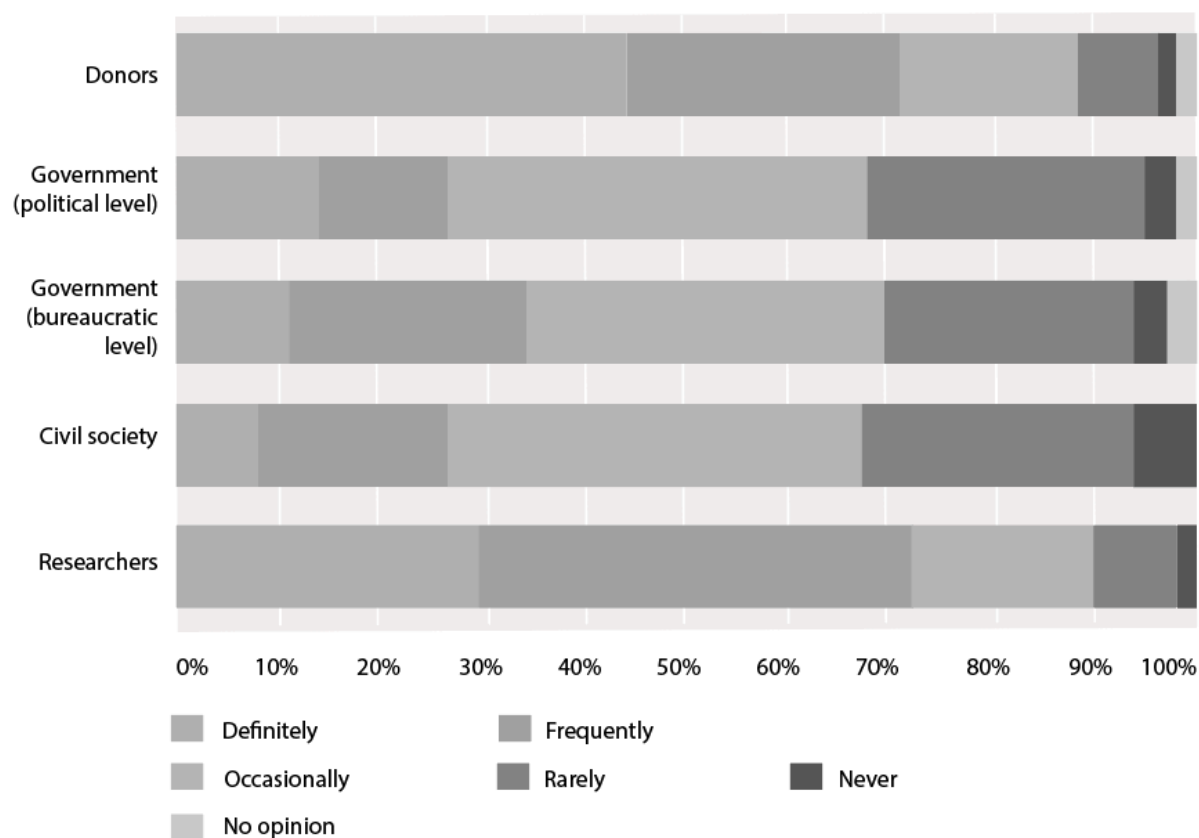
Virtually all respondents noted that funding was a constraint.

## **The General Research Environment**

Before reviewing the various views expressed on research priorities, it is useful to look at how *all respondents* view the drivers of research, the value of research to different audiences, the coverage of research in universities, and capacity building.

FIGURE 18 illustrates who respondents see as the ‘drivers’ of research in their respective country.

**FIGURE 18: PERCEIVED DRIVERS OF RESEARCH (ALL RESPONDENTS)  
(N=74)**

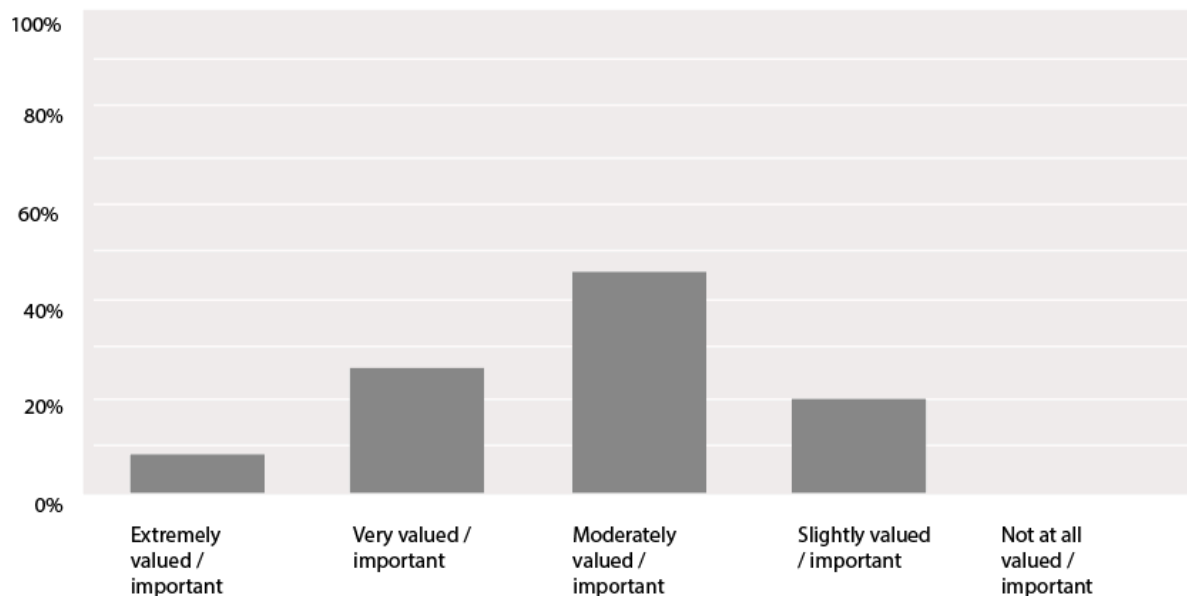


*Source:* Authors’ own calculations from survey responses (ANNEX)

Clearly donors are seen as the main drivers of research: over 70% of respondents see donors as ‘definitely’ (most frequently) or ‘frequently’ driving research. It is interesting to note that this figure is similar for researchers (though a significantly lower percentage see them as ‘definitely’ (most frequently) driving research).

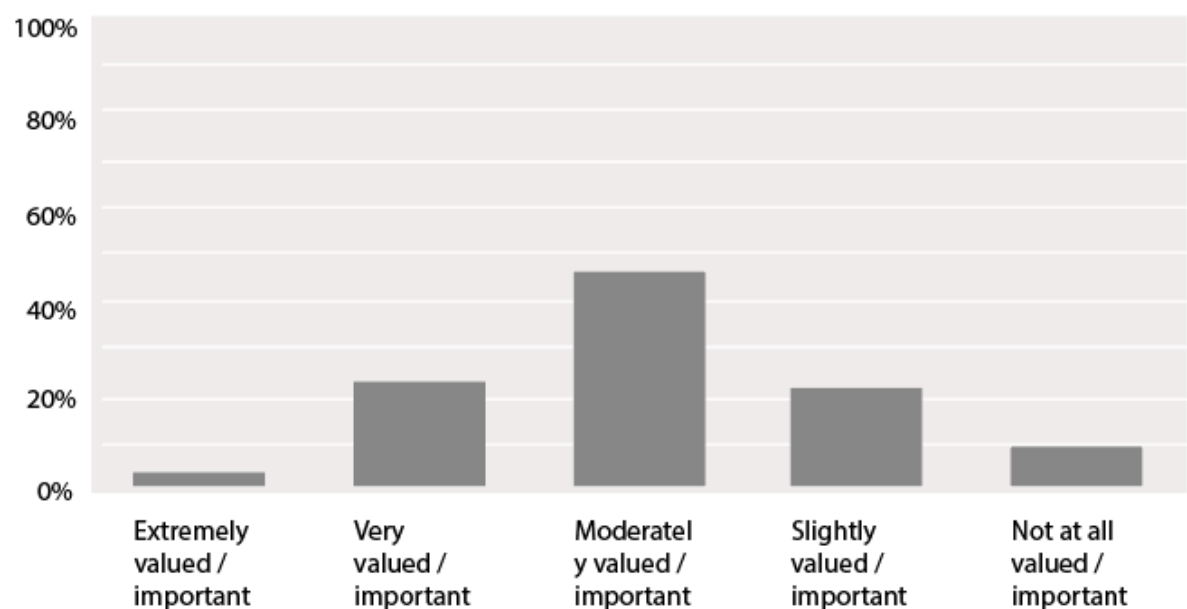
FIGURE 19 and FIGURE 20 below contrast the perceived value/importance of research to policy actors outside government and policy actors in government.

**FIGURE 19: PERCEIVED VALUE OF RESEARCH TO POLICY ACTORS OUTSIDE GOVERNMENT (N=74)**



Source: Authors' own calculations from survey responses (ANNEX)

**FIGURE 20: PERCEIVED VALUE OF RESEARCH TO POLICY ACTORS *INSIDE* GOVERNMENT (N=74)**



Source: Author's own calculations from survey responses (ANNEX)

It suggests that non-government users are more likely to place a higher value on research than government users.

Roughly 47% describe the level of media (print, TV, radio, web) attention to research evidence in their country as 'not much', although 30% indicated 'some attention' and 14% 'quite a lot'.

In terms of views about how the quality of research produced by national researchers compares with that of non-nationals, the majority of respondents (51%) describe it as 'about the same'. However, almost a third (31%) describe the research quality of national researchers as 'worse' (though 15% view it as 'better').

Views on the barriers faced by researchers and research organizations indicate that there are multiple barriers present in all the countries in the study group:

- 'Availability of research funding' was ranked by 85% as a very significant barrier.
- 'Competition for funding from other national or international researchers' was ranked by 40% as very significant barrier, and by 35% as a somewhat significant barrier.
- 'Access to national data' was ranked by 54% as a very significant barrier, and by 30% as a somewhat significant barrier. By contrast 21% described 'access to international data' as a very significant barrier.
- 'Lack of interest from policy actors in government' was ranked as a significant barrier by 41%, in contrast to 'lack of interest from non-government policy actors' (e.g. civil society, media, private sector, labor groups), which only 14% described as a very significant barrier.
- 'Communications skills of researchers' (policy engagement, outreach), and 'technical skills of researchers' (methods/tools/technologies) were ranked by 36% and 32%, respectively, as a very significant barrier.

By contrast, 'legal restrictions on research activities' and 'internet connectivity', were seen as not that significant, or as not significant at all by 38% and 28%, respectively.

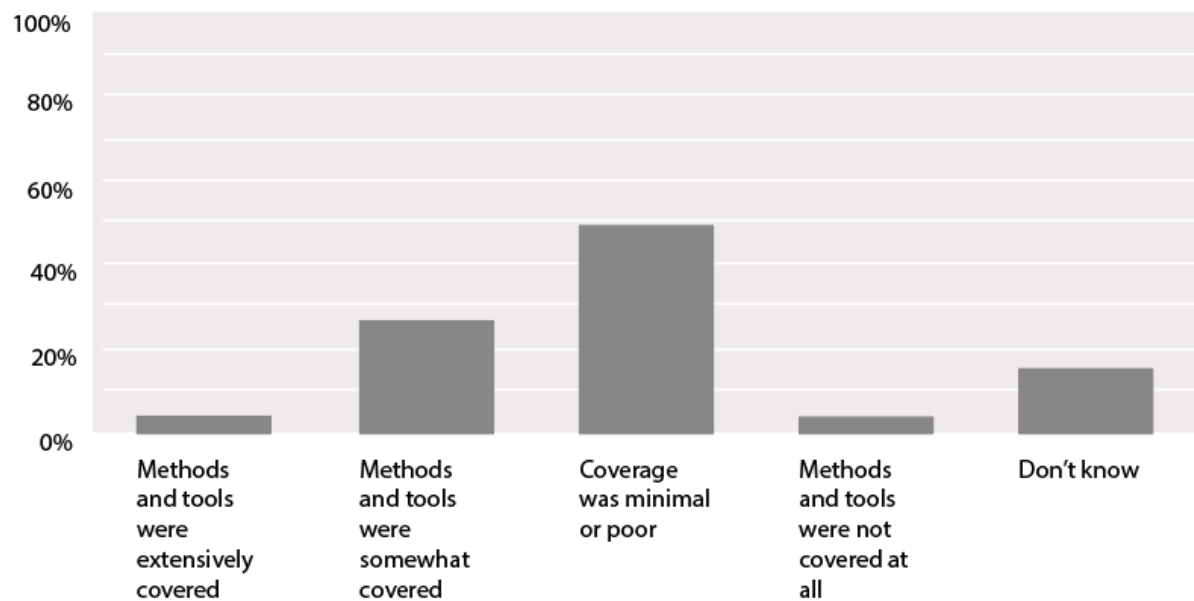
Somewhat more ambiguously, 'academic policies' and 'publication opportunities' were considered very or somewhat significant by 56% and 46% respectively, although 24% saw the former as not significant at all. In the Caribbean, this view was expressed in several interviews, and two factors were highlighted as barriers to policy utility:

- Academic policies incentivize research choices and publication channels that favor academically-oriented research (theoretical research as some referred to it) over policy-oriented research (applied research);
- The lengthy time frames involved in academic research and publication often mean that findings which are relevant to policy are not made available in a timely manner, and many researchers do not use communication channels appropriate to policy actors, or do so only after formal publication in journals has occurred.

Quite a range of views were expressed on the coverage of research concepts and methodologies in national universities.

FIGURE 21 below indicates that half the respondents saw coverage of research methods and tools as minimal or poor, suggesting that there are substantial opportunities to enhance formal teaching or research skills.

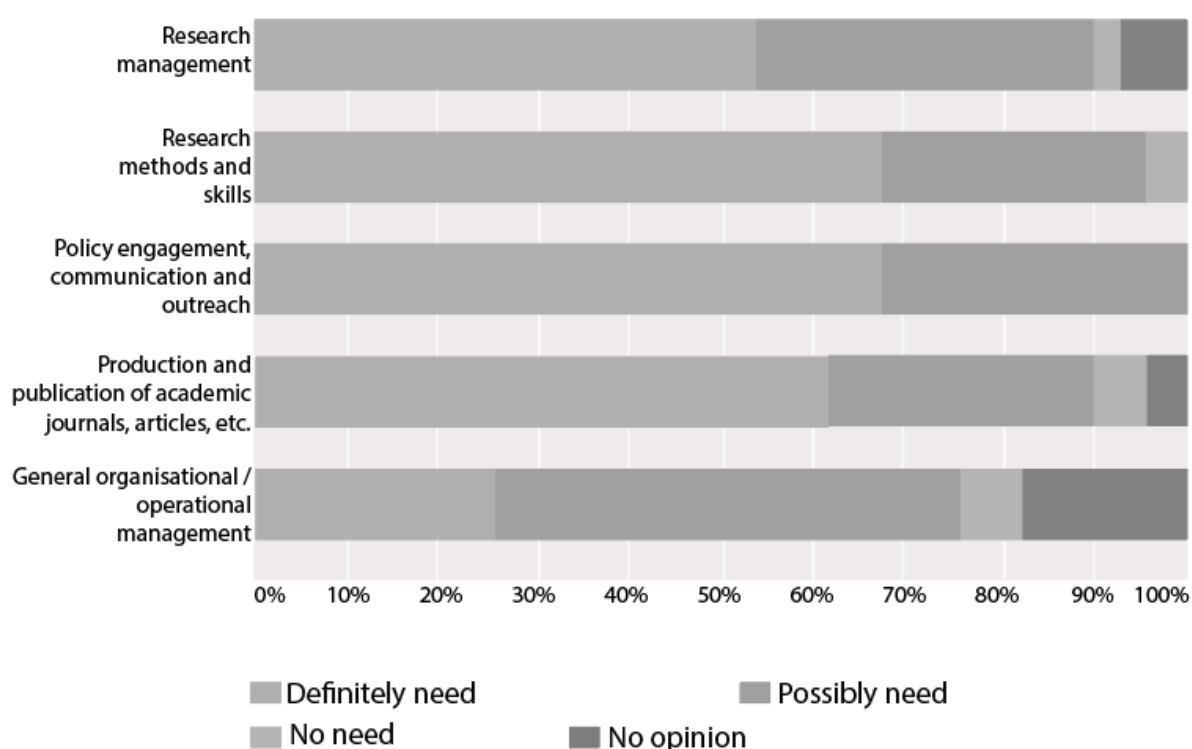
**FIGURE 21: PERCEPTIONS OF COVERAGE OF RESEARCH TEACHING IN NATIONAL UNIVERSITIES (N=73)**



*Source:* Author's own calculations from survey responses (ANNEX)

In terms of the need for capacity building of research *organizations*, FIGURE 22 below suggests that there are several areas of acute need, specifically: policy engagement, communication and outreach, and research methods and skills. This mirrors a view common among international organizations involved in policy/research capacity building: that there are major gaps in ‘hard’ and ‘soft’ skills that need to be addressed through formal education (i.e. graduate training), as well as post-degree professional development for working researchers.

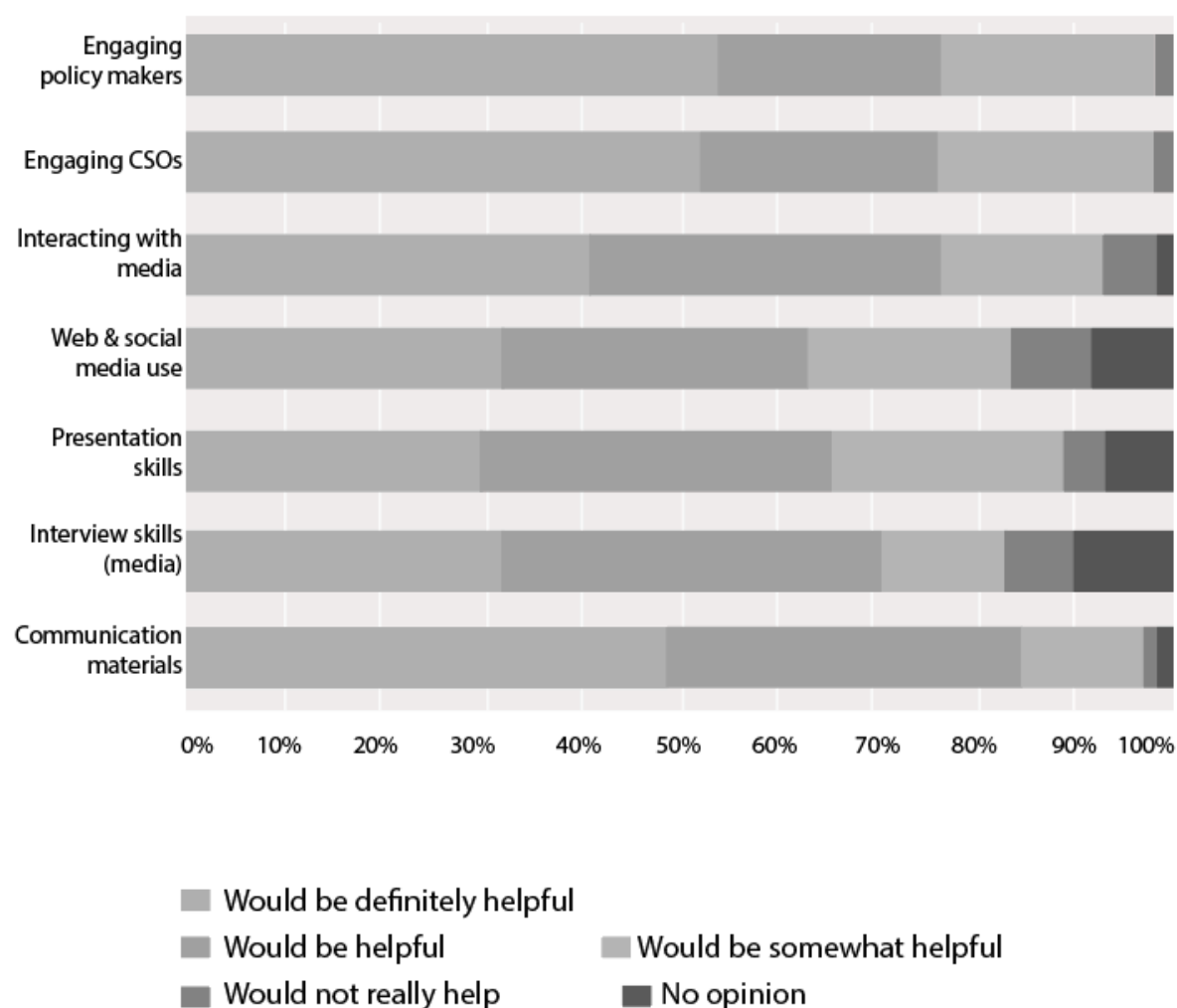
**FIGURE 22: NEED FOR CAPACITY BUILDING OF RESEARCH ORGANIZATIONS**  
(N=74)



Source: Authors’ own calculations from survey responses (ANNEX)

Similarly, respondents indicated several areas of capacity building that would be useful to *researchers* in their respective countries (see FIGURE 23). Most are typically viewed as skills essential to effective outreach and engagement of policy actors. The most prominent area relates to the ability of researchers to produce communications materials (articles, newsletters, policy briefs, speeches).

**FIGURE 23: USEFUL AREAS OF CAPACITY BUILDING FOR RESEARCHERS (N=74)**



Source: Authors; own calculations from survey responses (ANNEX)

Respondents were asked their views on different ways to improve the relevance and usefulness of research through capacity building. Their views on the value of various capacity building activities are ranked in TABLE 13 below.

**TABLE 13: RANKING OF TYPES OF CAPACITY BUILDING TO IMPROVE THE RELEVANCE AND USEFULNESS OF RESEARCH (ALL RESPONDENTS)**

Type of Capacity Building	Ranking
1. Greater participation in global or regional research networks	75%
2. Greater availability of non-degree training in research methods and tools	69%
3. Better formal higher education in research methods and tools	68%
4. More research communication (policy briefs, media appearances, presentations, seminars, etc.)	67%
5. More regional or national research meetings on research	65%
6. Training and/or technical support/guidance in research communications and policy engagement	64%
7. More research publication (papers, articles, books)	64%
8. More research or policy conferences/annual meetings	47%
9. Study visits by researchers to various policy actors	40%

*Source:* Authors' own calculations from survey responses (ANNEX)

Of the top four ranking areas of capacity building, three lend themselves to inclusion in graduate training and professional development courses. Additional suggestions/comments provided in the response to this question included:

- Development of some kind of national research agenda (one that comprehensively captures the diversity of research needs and interests)
- Faster production and dissemination of research to mitigate the effects of academic policies that slow down the research process
- More regional links (presumably among researchers)
- More research funding and better information on national research
- Fundraising for research that includes the active involvement of governments



- Restructuring/consolidation of research bodies
- Internship opportunities for researchers in educational research centers
- More national/government investment in social research and data collection about research and researchers
- Investment in targeted survey research on a range of thematic population issues
- The need for better data

## Research Needs and Priorities

The survey explored the perceptions of respondents on both general research needs with reference to their national context, and on the mid-term research priorities they would individually pick, for their country, were they in a decision making role.

In regard to research needs, all respondents were asked the following questions: “Thinking about the research needs of your country, which of the following do you see as needed?”<sup>26</sup>, followed by 23 topics.

The respondents identified a (varying) need for all research subjects. By frequency of selection, research needs cluster as follows (bearing in mind that some identified more than one area of research):<sup>27</sup>

- Economic development was the most cited subject (78%), followed by poverty, health, education, economic development, employment and livelihoods, growth and inequality, and impact evaluation (each between 50% and 70%).
- Environment, public expenditure analysis, program evaluation, social protection, natural resources, and climate change, were the second most cited subjects (each between 40% and 50%).
- The third cluster of subjects included governance, ICT, agriculture, food security, trade and regional integration, and gender studies (each between 30% and 40%).
- The fourth cluster included finance and resource mobilization, urbanization, microfinance, and (national) security (between 10% and 30%).

The ‘other’ category included an interesting mix: impact of governance reform programs; trade and cultural industries; extractive industries (mining); management in the private and public sectors; entrepreneurship; and small business internationalization.

All respondents were also asked, separately: “If you could set the top five research priorities for the country over the next 2 years what would they be?”<sup>28</sup> This question had a twin objective: to guide the thematic focus of the rest of the program; and to obtain a snapshot of ‘urgent’ research priorities for the region, from both a demand and a supply side perspective. All three country group reports contain a great deal of information about perceived research priorities – in fact, more information than can be easily synthesized.

The table below presents results disaggregated by role of respondents (supply-side and demand-side) for topics selected by respondents respectively as first and second priority,

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<sup>26</sup> See Q 59 in Annex

<sup>27</sup> Within each cluster, the level of attention to each subject area was more or less the same unless otherwise noted.

<sup>28</sup> See Q60 in Annex. Responses were coded according to the 23 categories listed in Q59.

aggregated for the whole region. Topics are listed according to the frequency of selection by respondents. Topics mentioned only by respondents in a specific country group are excluded from this table. A star signals a very close number of preferences between two or more topics within one box.

**TABLE 14: SUPPLY AND DEMAND ACTORS' RESEARCH PRIORITIES (ALL COUNTRY GROUPS) (N=65)**

	Priorities by Users of Research	Priorities by Suppliers of Research	Common priorities
1 <sup>st</sup> priority	Health* Education*	Health* Poverty* Education Impact Evaluation	Health* Education*
2 <sup>nd</sup> priority	Impact Evaluation Economic Development Climate Change	Economic Development Impact Evaluation* Public Expenditure Analysis*	Economic Development Impact Evaluation

Importantly, health and education appear as the top priority, with an equal number of preferences, for demand side actors, and education feature prominently in both the first and second priorities of supply side actors. This indicates that education might be a field on which users and producers of research can collaborate with relative ease and shared sense of urgency, and on which capacity to conduct and use research already exist. Impact evaluation follows suit, though it ranks below health, education and poverty, the latter being an established priority for researchers as it also emerged from interviews (below). Interestingly, economic development featured as the top choice in the response to question regarding needs (above) but only as a second priority when respondents are asked to prioritise new efforts (TABLE 15), possibly reflecting the fact that relatively more effort has gone into this field in recent years. Interestingly, public expenditure analysis is a relatively high priority for producers of research, but not for users, a finding that might be critical for the further development of the program: it possibly suggests that significant efforts need to go into stimulating a demand for this type of analysis at the country level. Climate change, instead, appears as the only topic for which there is a relatively strong demand from users of research, so far unmatched by equal interest on the side of research producers.

Below, we present the survey results by country group, and integrate data available in the tables with information collected during interviews, discussed in the body of the report.

### Research Priorities Identified in the Caribbean Country Group

The table below presents results disaggregated by role of respondents (supply-side and demand-side) for topics selected by respondents respectively as first and second priority for their country, in the Caribbean country group. Topics are ordered from the most to the least frequently selected. A star signals a very close result for two topics within the same box.

**TABLE 15: SUPPLY AND DEMAND ACTORS' LIST OF RESEARCH PRIORITIES (CARIBBEAN GROUP) (N=17)**

	Priorities by Users of Research	Priorities by Suppliers of Research	Common priorities
1 <sup>st</sup> priority	Climate change Education Programme evaluation Growth and inequality* Natural resource management* Governance* Impact evaluation*	Health Impact evaluation Social protection* Employment and livelihoods* Education*	Education Impact Evaluation
2 <sup>nd</sup> priority	Climate change Impact evaluation Security Economic development* Food security*	Climate change* ICT* Employment and livelihoods* Social protection* Environment* Gender studies*	Climate Change

When corroborated with information obtained from the interviews, the issues can be grouped in a few clusters of particular interest, below. This exercise suggests that there are a few areas where consensus on research priorities may be easier than others, but that most areas (beyond the specific case of education) might need significant capacity building before demand and supply can meet in a systematic way. As announced above, clusters for the Caribbean region are:

**Economy and Growth** – Includes: economic impact of national cultural industries; and development of successful entrepreneurs.

**Environment** – Includes: climate change and impacts on small island states; effect of global warming on small island/coastal states; climate impacts, and natural resource management.

**Social Sector** – Includes: health; population aging and health; effectiveness of health spending; *education (outcomes, quality, impact of ICT on learning)*; social protection; and community policing.

**Public Sector Reform/Management** – Includes: impact of governance reforms; impact analysis of various policing policies; planning; and program evaluations.

### **Research Priorities Identified in the South America Country Group**

Despite 65 respondents to the survey originating from the Latin American group, only 37 responded to the question on priorities, and in the case of Bolivia there were no responses from the users of research, possibly highlighting the concerns from researchers about the

lack of interest from public officials on research for policymaking. Table 16 presents first and second priorities, for the country group as a whole. The first and second column list topics from the most to the least frequently selected, respectively by research users in the first column, and by research producers in the second; the third column, instead, lists common topics, that is topic for which the data collected suggests that demand and supply of research could meet with the present level of capacity. The ones missing from the third column, by contrast, are likely to be the topics on which capacity building on either (or both) the research and policy side might be most needed. Topics are ordered from the most to the least frequently selected. A star signals a very close result for two topics within the same box.

**TABLE 16: SUPPLY AND DEMAND ACTORS' LIST OF RESEARCH PRIORITIES (SOUTH AMERICA GROUP) (N=37)**

	Priorities by Users of Research	Priorities by Suppliers of Research	Common priorities
1 <sup>st</sup> priority	Health Governance Growth and inequality* Employment and livelihoods* Education* Poverty*	Poverty Health Education Economic development Public expenditure analysis Natural resource management Impact evaluation Growth and inequality* Employment and livelihoods* Food security* Climate change*  Economic development Education Public expenditure analysis Poverty Natural resource management Impact evaluation Programme evaluation* Urbanisation* Agriculture* Food security* Finance and resource mobilization* Health*	Health* Poverty* Education Growth and Inequality
2 <sup>nd</sup> priority	Health Impact evaluation Economic development Agriculture* Social protection* Education* Employment and livelihoods*		Economic development Education Impact evaluation Agriculture Health

## **For the Country Group as a Whole**

For the country group as the whole, when enquiring about research needs, the main issue of concern is economic development. This is understandable given that there has been a slowing down of economic growth in the region. There are similar priorities in the issues of economic development, employment, growth and inequality, and poverty. Interviews also shed light on two perspectives on evaluation agendas: for the users of research there seems to be a preference for program evaluation and public expenditure analysis; on the side of research producers, impact evaluation is the priority. This highlights a possible divide between the expectations regarding evaluation from perspective of practice and academic actors. Health and education appear, but not in both sides of the equation with equal relevance in every country.

The relatively higher volume of data obtained from the survey and the interviews from this group allows to discuss the three countries included in the group individually, below.

### **For Bolivia**

In interviews, researchers in Bolivia have highlighted the importance of economic issues, across sectors: growth, employment and inequality. Public expenditure in health and education were key topics for many of the researchers that participated in the survey, too. Two researchers also prioritized issues related to public resources and impact evaluations, as well as the analysis of the tax system. In the interviews, health and education were identified as issues, but not specific to public expenditure. For example, a researcher mentioned the importance of environmental aspects that impact the quality of health in rural areas. Education, both in terms of quality and access, was seen as a priority. Researchers interviewed did not identify a specific research interest in public expenditure and social services, but did note its value. Other relevant topics were poverty and inequality, and natural resource management (from an economic, social and environmental perspective) – important in Bolivia, because of its gas and mining industries.

### **For Ecuador**

In Ecuador, there is agreement between the producers and suppliers of research on some key issues: economic development, employment, poverty, health and education. From the researcher's perspective there is an interest on evaluations and analysis of public expenditure. This may be due to the increase in the budget for social sectors such as health and education by the current government (2007-2016). This increase in social expenditure, however, might suffer significant cuts given the reduction in the price of oil and the country's high dependency on oil revenue. At the time of the interviews, it was expected that the budget for 2016 would be 18% lower than in 2015. Given these changes, researchers expressed the need to better understand how to more effectively utilize resources during times of fiscal constraint.

The 'last mile of service delivery' was also highlighted as a priority and an issue not included in the survey. Ecuador has significantly increased social spending and coverage of key social services. However, interviews carried out with policymakers suggest that central government officials have little knowledge about 'how' the last mile of service is working. In other words, they do not know if the service is really being provided, especially in distant,

hard to reach places. Nor do they know much about the quality of the services provided or the bottlenecks faced by staff at lower levels. For example, although there has been a significant increase in investment in medicines, there are some locations where users have not received them, and the central government does not understand why.

Coordination within the government was also raised as an issue. The Ecuadorian government has designed new models for coordination, essentially identifying a clear ‘coordinating’ ministry for different sectors. For example, the Social Development Ministry has the role of coordinating and harmonizing social services among several different ministries. In practice, this does not always work; sector ministries tend to duplicate efforts and overlap in activities is common. Coordination was identified by policymakers as a key mechanism for efficiency and effectiveness.

Decentralization was also flagged as an important issue. While health and education are still managed by the central government, local level offices have been given more decision-making power. In some specific areas, such as medical and education infrastructure, local governments play an important role. However, there is a lack of clarity about these roles, and a need to understand how to maximize the involvement of these institutions.

Administrative information is another area of need. In order to improve data and make better decisions, policymakers identified the need for better administrative information from the services they provide. Currently, the central government relies heavily on data collected through household surveys and the social registry (for cash transfers). However, the government is expected to reduce the budget for surveys and rely more heavily on administrative data, but has not yet devised a plan on how to implement this.

## **For Paraguay**

Poverty, education and program evaluation are key issues identified by both researchers and users. This sets an interesting start for possible collaborations in Paraguay. What the interviews revealed was that, while these topics are of interest, there was less nuanced understanding of the issues compared with the other two countries. Interviewees were less able to elaborate on the precise issues within these topics where they would focus attention. This might be related to Paraguay’s low indicators in terms of research and policy capacity.

## **Research Priorities Identified in the Central America Country Group**

TABLE 17 presents first and second priorities, for the Central American country group as a whole. Regrettably, none of the respondents to the online survey identified themselves as a demand-side actor, hence the analysis of the commonalities (below, in the report body) draws exclusively on the information obtained through interviews. Topics in the table are listed from the most to the least frequently selected. A star signals a very close number of respondents for two or more topics.

**TABLE 17: SUPPLY ACTORS' LIST OF RESEARCH PRIORITIES (CENTRAL AMERICA GROUP) (N=11)**

	Priorities by Suppliers of Research
1 <sup>st</sup> priority	Public expenditure analysis Food security Education* Social protection* Natural resource management* Governance* Microfinance* Growth and inequality Poverty*
2 <sup>nd</sup> priority	Governance* Impact evaluation* Education* Climate change* Gender studies*

Interviewees complemented the partial data collected through the survey by identifying a considerable variety of research priorities, on both the demand and supply side. Although the selection of priorities differ between the different actors and countries, some coincidences can be identified for the purposes of the project.

- *Country Group Coincidences* – irrespective of the actors, interviews highlighted a lot of interest in corruption and accountability, which were not coded into the survey beyond the general category of ‘governance’; commerce and attracting foreign direct investment (FDI), strengthening institutions, and human capital development featured prominently in interviews. For the three countries in the northern triangle, justice and security is also an important area for research. It is important to mention that respondents expressed their interest in human capital development as a general topic, but some of them identified more specific subjects within this topic, such as reform to teachers’ curricula, medicinal supply chains, or ‘1,000 Days Window’ actions.<sup>29</sup>
- *Actor Coincidences* -- from the supply side (research institutions), research priorities relate more to financial sustainability and budgetary concerns, corruption and accountability, and human capital development for health and education sectors. Transversal topics include disaggregation of analyses by gender or ethnicity (indigenous people). From the demand side (policy actors), research priorities are concerned more with institutional reforms, especially for institutions in charge of commerce and attracting FDI, promoting competitiveness and tax collection, which were instead not reflected in the survey. Human capital was also identified as a demand-side research priority, but with an emphasis on the analysis of public service delivery and service quality (focused on vulnerable groups).

<sup>29</sup> Actions related to nutritional health of women and children, particularly during the 1,000-day window between pregnancy and age two.

Topics such as infrastructure, sustainable use of natural resources, health, education, security, justice, governance, corruption and accountability, strengthening institutions, budget evaluation, and growth and poverty are always potential subjects for research in the region, largely because of the poor level of performance in development indicators. However, very context specific priorities seem the most appealing to research institutions and policy actors. For example, Guatemala, El Salvador and Honduras are more interested in solving the high rates of criminality, while Costa Rica, Nicaragua and Panama are more focused on the sustainable use of natural resources and enhancing civil society participation.



## CONCLUSION

As noted in the introduction, the mapping focused on four areas of knowledge: the local supply of research; the local demand for research; the local demand and supply for public expenditure analysis; and perceptions regarding research priorities (from both a demand and supply perspective). Key aspects of these are noted below accompanied by the main conclusions drawn from the surveys, interviews and other data sources.

The first objective was to develop a picture of **the nature of research and researchers present in each of the countries of focus, and the variety and types of organizations doing research**. The mapping sought to reveal what has occupied research attention, where researchers are based (e.g., think tanks, CSOs, private sector organizations, government agencies, universities) and their profile (e.g., age, gender, education, institutional affiliation, capacity building experiences). In addition, the survey sought information on how research was supported, who drives the demand for research, preferences for different types of professional development, researchers' experience in policy engagement and the perceived value of different types of capacity building.

By and large information on all these dimensions was obtained – although it is important to note the limitations of the mapping and the relatively small number of respondents (n=131). Two key conclusions are particularly noteworthy in relation to the production of research and the institutional research environment: (i) these countries produce relatively low levels of research, and (ii) their institutional landscapes vary greatly – as is shown, for example, by the uneven distribution of think tanks across the continent.

### **Most countries in the study produce relatively low levels of research as measured by various publication metrics.**

Data on journal publications are undoubtedly an important metric, and are an established indicator of national and institutional research activity. However, the picture is not fully complete without a better indication of the overall population of researchers, the capacity or trends in the higher education sector (particularly in terms of the 'production' of graduates doing research), and a more comprehensive understanding of the varieties of research being produced. It is also important to be cautious in accepting publication figures as an absolute indicator of research quality, or of policy relevance or utility (although citation rates are a widely-accepted indicator).

TABLE 18 illustrates the differences in the production of research in the countries covered in comparison to the LAC average against several metrics:

- publications per GDP
- publications per capita
- 'budget' for research activities
- total publications

**TABLE 18: RESEARCH PUBLICATIONS IN COMPARISON TO LAC (13 COUNTRIES IN STUDY GROUP)**

	Country	SCI Publications per GDP (2013)	SCI Publication per capita (2013)	Budget on Research Activities (2013-2014)	SCI Publications (2013)
South America	Chile	24.39	38.32	N/A	6757
	Brasil	18.06	22.15	1.6%	44530
	Argentina	16.32	24.14	0.6%	10017
	Uruguay	15.92	27.76	0.5%	916
	Colombia	10.23	8.25	0.6%	3888
	Bolivia	9.25	2.65	N/A	283
	Paraguay	6.23	2.78	0.3%	186
	Ecuador	5.74	3.44	N/A	542
	Perú	4.54	2.99	N/A	912
	Venezuela	3.38	4.05	N/A	1231
Central America and Mexico	Panama	11.41	11.21	0.3%	433
	Costa Rica	10.07	10.52	2%	496
	Nicaragua	6.44	1.14	N/A	70
	Guatemala	3.55	1.22	N/A	191
	El Salvador	2.34	0.90	1.10%	57
	México	10.03	10.66	0.9%	12621
Caribbean	Barbados	18.22	27.40	N/A	78
	Jamaica	14.97	7.92	N/A	215
	Haiti	8.75	0.72	N/A	74
	Trinidad y Tobago	7.03	13.88	0.2%	186
	Guyana	5.69	2.23	N/A	17
	República Dominicana	0.18	0.11	N/A	11
Latin America and Caribbeans		14.18	13.43	1%	81784

Source: Red de Indicadores de Ciencia y Tecnología - Iberoamericana e Interamericana - RICYT

Countries which are part of the study and in the sample in the database: Bolivia, Paraguay, Ecuador, Panama, Costa Rica, Nicaragua, Guatemala, El Salvador, Barbados, Jamaica, Trinidad y Tobago, Guyana and República Dominicana

In terms of publication per GDP, only Barbados and Jamaica exceed the LAC average (14.18), with Barbados close to Brazil at the top of the table – although in absolute terms, Barbados only produced 78 publications in 2013, compared to over 44,500 in Brazil (TABLE 18); and eight of the study countries produced more research than Barbados.

On a per capita basis, Barbados again tops the countries of study, and at 27.4 is roughly double the LAC average – with the same caveat about small absolute numbers. Trinidad & Tobago is the only other study country that slightly exceeds the LAC average; in absolute terms, it produced more than twice the volume of research than Barbados in the same period.

The budget data on research activities is scant; it is only available for five of the countries studied (Paraguay, Panama, Costa Rica, El Salvador and Trinidad & Tobago) and does not provide a clear picture.

The 2013 Science Citation Index (SCI) data on total publications indicates that, collectively, 13 of the countries in this study account for only 3.4% of the research produced in LAC. More than half of this was produced by three countries: Ecuador, Panama and Costa Rica.

The data on historical trends in SCI publications (see TABLE 19) indicates a general increase in research publications in all countries studied from 2000 to 2013, mirroring the LAC trend. However, three countries (Barbados, Jamaica and the Dominican Republic) showed a sharp decline in research production between 2011 and 2013. Guyana is the only country from the study group with a pronounced fluctuation in research production over the entire period.

A more nuanced (if still incomplete) picture of *research output*, is available from the 2014 figures, which also includes the Bahamas (UNESCO, 2015). For the Caribbean group, Barbados tops the list of scientific publications per million people (182), followed closely by Trinidad & Tobago (109), and the Bahamas (86); Jamaica stands at 47. For the other two country groups, Uruguay tops the list (241), followed by Costa Rica (96), Panama (83), Ecuador (32) and Bolivia (19); the remainder vary between nine and four publications per million people.

Most published research in the Caribbean Community (CARICOM) relates to health, led by Jamaica and Trinidad and Tobago. The share of social science research is very small according to UNESCO (2015) 2008-2014 cumulative figures. The Bahamas, for example, only produced four social science publications, compared to 42 in agriculture and six in psychology. In absolute numbers, Trinidad's social science output for the same period is more than three times that of any other country in the Caribbean group.

For the Central and South America country groups, while the absolute number of social science publications is much higher – 33 for Costa Rica and 21 for Uruguay, for example – they have a similar share of total scientific publications to that of the Caribbean countries (though research in 'life sciences' rather than 'education' dominates in Latin America). UNESCO (2015) figures do not disaggregate the social sciences, so it is difficult to determine which sub-disciplines or topics dominate publication.

**TABLE 19: HISTORICAL TRENDS IN SCI PUBLICATIONS (2000-2013)**

SCI Publications Historical Trend																
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
	América Latina y el Caribe	28657	30339	33577	35299	36745	38729	41669	45606	58862	61853	65331	70084	77143	81784	
South America	Chile	2282	2363	2655	2972	2991	3262	3564	3559	4251	4952	5162	5684	6328	6757	
	Brasil	12895	13677	15854	16324	17785	18765	20858	23109	31903	34243	36155	39105	42135	44530	
	Argentina	5121	5309	5581	5640	5499	5699	5935	6479	7618	7739	8469	8861	9835	10017	
	Uruguay	351	352	398	418	468	470	479	518	675	686	720	818	696	916	
	Colombia	734	734	815	840	910	950	1115	1239	2184	2386	2798	3167	3594	3888	
	Bolivia	75	94	107	129	124	153	158	201	238	229	220	248	242	283	
	Paraguay	30	43	36	43	45	44	40	57	53	60	78	88	84	186	
	Ecuador	136	117	176	193	173	234	226	287	344	408	350	366	468	542	
	Perú	228	277	346	423	331	407	452	593	673	761	766	788	388	912	
	Venezuela	1179	1131	1220	1235	1120	1234	1197	1261	1535	1400	1385	1180	1154	1231	
Central America and México	Panamá	162	210	198	222	178	180	219	369	391	364	424	454	512	433	
	Costa Rica	223	281	278	285	307	335	283	398	431	433	456	482	475	496	
	Nicaragua	26	23	24	27	34	40	65	48	68	73	87	77	83	70	
	Guatemala	64	74	73	70	75	96	73	101	99	128	133	121	170	191	
	El Salvador	17	15	16	14	25	25	21	20	29	45	59	75	67	57	
	México	5215	5666	5995	6602	6748	6807	6504	8501	9637	9778	10171	11069	11624	12621	
Caribbean	Barbados	39	46	40	59	64	56	44	43	63	53	69	90	85	78	
	Jamaica	152	195	147	189	340	184	150	156	374	357	362	369	390	215	
	Haiti	12	16	19	18	22	47	29	28	33	28	38	59	70	74	
	Trinidad y Tobago	108	137	135	127	129	206	139	176	171	186	185	192	195	186	
	Guyana	9	13		8	9	28	16	25	20	13	28	19	22	17	
	República Dominicana	49	37	26	33	36	37	29	46	61	46	70	81	104	11	

Source: Red de Indicadores de Ciencia y Tecnología -Iberoamericana e Interamericana - RICYT

Red countries denote countries part of the study

Countries not in the sample are not in database

Recent trends in research publication are somewhat discouraging. The number of scientific publications in Jamaica declined from a high of roughly 175 in 2012 to 117 in 2014. Barbados and Suriname are also on a downward trend. Guyana, which started with 14 in 2005 and has fluctuated ever since, stood at 23 in 2014. The Bahamas grew from 8 to 33 in the same period. Publication trends in the Central and South American country groups are more positive, with significant growth rates in the number of scientific publications since 2005 for Uruguay (94%), Ecuador (151%), Costa Rica (57%) and Bolivia (72%). All the other countries recorded positive trends, but at lower rates.

As the UNESCO (2015) report points out, countries with 'modest' research output can have among the highest citation rates. For the 2008-2012 period, research from Bolivia, Costa Rica, Ecuador and Panama was above the G20 average citation rate. It is worth noting that in every country in the two groups, the majority of published articles have foreign co-authors. With foreign co-authorship rates ranging from a low of 70.4% in Uruguay, to a high of 97.6% in Honduras, all countries in the group are well above the G20 average of 24.6% (only Brazil is close to this average, at 28.4%).

*Researcher population* figures are somewhat challenging as comparative international data favors research and development related to science, technology and innovation (STI) and there is a lot of missing data, especially for smaller countries – which includes most of the countries in our study.

Of the 17 countries in this mapping study, UNESCO Institute of Statistics data on the researcher population (measured by FTE<sup>30</sup> researchers per million people between 2005 and 2012) are available only for seven countries (Bolivia, Costa Rica, Ecuador, Guatemala, Panama, Paraguay and Uruguay). Only two of these – Costa Rica and Uruguay – are above the LAC average of 492 FTE researchers per million: 1,327 and 537 per million, respectively. There is, however, considerable growth in the absolute number of (FTE) researchers in a few of the countries. For example, Costa Rica's researcher population grew from 548 in 2003 to 6,107 in 2011, while Ecuador saw a growth from 983 researchers in 1996 to 2,735 in 2011.<sup>31</sup> Figures for Caribbean countries are not available.

The *higher education* picture is quite different, at least in Latin America, where figures are provided by UNESCO (2015). The majority of first degree graduates are in social sciences (56% in 2012), compared to the next largest cohort, engineering and technology graduates (15.3%). The share of Ph.D. graduates is also highest for social sciences and humanities (48%), followed by the natural sciences (14.75%). Up until 2000, these two fields were much closer in relative size, and at one point the natural sciences dominated. When one looks at the number of doctoral graduates per million inhabitants in LAC in 2012, the numbers in the country groups are low to modest – ranging from 1 in Ecuador to a high of 25 in Paraguay. By contrast the figure for Brazil is 70, which is higher than for China and South Africa (39 and 36 respectively).

## **The institutional research environment**

The first obvious feature is the more visible presence of think tanks in Latin America than in the Caribbean group. The small size of island states presents a significant challenge to stand-alone national think tanks and, to date, efforts to develop regional independent think tanks have not been very successful. Of the study countries in the Caribbean, the Dominican Republic seems to have the most visible think tank community, and the research environment has much more in common with Central and South American countries (including so-called think tanks that act more like advocacy organizations than research bodies).

In the Central and South American countries, a vibrant network of think tanks has emerged, and although many engage more in advocacy than in the technical production of research, there is clearly an emerging regional 'think tank' sector. There are also some strong research networks in the region – although many that refer to themselves as LAC networks are only marginally active in the Caribbean.

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<sup>30</sup> FTE – full time equivalent

<sup>31</sup> UNESCO Science Report: Towards 2030, 2015

All three country groups include countries that are heavily reliant on one or two small, modestly-endowed universities. There are also examples across the sample of universities that have developed exceptionally high-quality programs, and a few that are formally pan-national schools. In terms of possible synergies, it would be useful for GDN and others to consider how the region's top think tanks and universities might play a stronger role in research capacity building in small countries where human and financial resources are limited.

Despite the differences among the countries in the three groups, researchers in Latin America are a growing segment of the academic sector, and in some countries, are increasingly involved in working closely with the private sector, universities, international donors and civil society. The most significant characteristics of this group are its relatively young age (especially in countries where the majority of researchers have only undergraduate degrees), the relatively equal participation of men and women in research, the growing cadre with foreign experience (such as post-graduate studies), and the growing numbers involved in multi-sector or cross-disciplinary networks. There are several 'takeaway' messages from this overview:

- Addressing the lack of post graduate-level trained researchers needs to be a priority in some countries. The large numbers of researchers (almost 40% in some countries) with training that stopped at undergraduate level has significant implications for research quality.
- There is a need for so-called compensatory training and development – specifically professional development that makes up for the lack of academic coverage and levels of education among researchers. Even among researchers with doctoral level training, the surveys indicated a desire for better exposure to non-degree professional development and training, such as in research methods and other technical skills (i.e., survey design). Both researchers and non-researchers in almost all countries expressed a view that the quality of research training in national universities was weaker than it should be.
- The absence of a more systematic, comprehensive and comparative mechanism for monitoring the social science research environment at a national level, that emphasizes research use in the context of public policy, is clearly a gap. Surveys and mapping activities like this study can provide a picture but:
  - a. are not much more than a snapshot;
  - b. tend to overstate the anecdotal; and,
  - c. have uneven coverage of many stakeholders.

It would be worth further exploring the utility and possible design features of an indexing instrument that can be applied at regular intervals to assess the societal visibility of research at the national level. This might include monitoring such things as research references in print, radio and television, in web and social media, and in public policy documents such as speeches, announcements, sector plans and strategies, and consultation papers.

The second objective was **to develop a picture of the current and potential audiences for research, primarily but not exclusively, in the focus countries**. Mapping looked at the audiences for policy-oriented research (policy actors), and their involvement in research demand and funding.

The mapping evidenced some interesting differences in views on issues ranging from research quality, capacity building and research needs, as seen from the perspective of those who use research and those who produce research.

Spaces for engagement between policymakers and researchers appear to be limited. The interviews with users and producers of research portray a lack of engagement and understanding of each other's needs and capacities. Both groups acknowledge that donors can play a brokerage role, by connecting and facilitating dialog on a research topic.

Researchers face difficulties identifying critical bottlenecks and research questions for policy-relevant research. The survey brought out some general research priorities. However, in the interviews, the researchers had difficulty clearly identifying specific policy-relevant questions.

Under scrutiny from a more educated population, policy actors can, should they choose, become more explicit in demanding the involvement of researchers and research institutions in assessing alternative ways to address a wide range of problems present in the region. Currently, the opportunities for policy actors to articulate research needs, support mobilization of research resources, and align timing and relevance are limited. The interest expressed by several senior officials in having a comprehensive national research index or framework underscores this. For many policy actors, the research needs/supply picture of their country is at present highly fragmented and abstruse.

Capacity development is also relevant to policy users, whether in enhancing informed decision-making on research design (to the point of being able to distinguish whether or not a research proposal will address the questions required) and in enhancing communication from researchers to policy actors within and outside government. To inform thinking on capacity development strategy, including that of this research project, the mapping has identified the perceptions of researchers and users of research on a wide range of capacity gaps. For example, researchers prioritize developing their communication skills, while users of research believe that researchers need to improve their methods and analytical skills.

The third objective was **to capture the extent to which research and policy attention has focused on public expenditure analysis generally, and on research specific to health and education** in the countries of focus. The mapping sought to compare the level of research attention given to public expenditure analysis and/or service delivery with other areas of research attention, as well as the level of interest from policy actors in these areas.

Closely related to this is the fourth objective: informing understanding of views on **what the major areas for policy-oriented research attention should be for the next five years**. The surveys/interviews sought to obtain perceptions of priorities and the drivers of research priorities, and to understand how research related to public expenditure in education and health is situated among other perceived priorities. Both areas are intertwined.

As is apparent from the surveys, **health and education research are among the top areas of current and recent activity by significant numbers of researchers** (46% and 35% respectively), although a much smaller number (27%) indicated on-going activity in public expenditure analysis. However, a significant number indicated experience in program evaluation and impact evaluation.

It is also worth highlighting how researchers saw the top research needs of their country: 65% indicated health; 70% indicated education; 59% indicated public expenditure analysis; and 67% indicated impact evaluation. Only economic development and employment / livelihoods received higher rankings (76% respectively).

Policy actors' experience and views, not surprisingly, differ somewhat from those of researchers. When it comes to research subjects of interest to policy actors *in the past 10 years*, the top three subjects were health, education and program evaluation (51% each), followed closely by impact evaluation (48%), and public expenditure review (38%). All other subjects received lower response rates.

In terms of research needs for their countries, again, policy actors cited in descending order of priority: economic development (72%); health (60%); environment (56%); employment/livelihoods (52%); growth and inequality, and program evaluation (48% each); education and social protection (44% each); public expenditure reviews and impact evaluation (40% each).

Interviews with policy actors add to this picture of potential demand. Instead of focusing on the size of budgets, policy actors are increasingly interested in alternative approaches to solving education and health problems. This is partly related to increasing concern about transparency and accountability of funds used for social programs, as well as interest in the effectiveness of alternative policies and services.

When prompted regarding the priorities they would personally set for their country, however, responses of demand and policy side actors overlap on health and education as first priority, followed by economic development and impact evaluation as second priorities. TABLE 15 de facto identifies topics for which capacities exist (common topics between supply and demand side actors) and those for which capacity building efforts, including externally coordinated ones, might be most needed (topics present in the priorities of demand side actors across the region, but missing on the supply side) before demand-driven policy relevant research can be produced systematically, and fed into the policy debate. Climate change-related research appears as one of these high priority topics for which basic capacity building might be needed.

The main takeaway messages in this area are:

- That regardless of whether GDN follows researchers' views on research needs or those of policy actors, there is sufficient commonality of interest to justify a focus on health and education research in the next stage of the project. For the six projects anticipated across the 17 countries, it will not be difficult to find researchers or policy actors interested in these subjects. A more challenging aspect will be:
- GDN to decide if both health *and* education as broad subjects can be properly accommodated in a single project that only involves six research grants. It is worth



considering choosing one or the other, and if so, health would probably better reflect policy interest; and,

- To determine within the subject(s) what specific researchable issues would resonate most.
- It might also be useful to broaden somewhat the notion of research on health or education from its current focus on public expenditure. Given the interest in program evaluation and impact evaluation, a conceptual framework that accommodates assessing the outcome of a specific policy or program intervention (i.e., a new law, regulatory changes, an intervention to enhance access or uptake or service quality, etc.) can probably accommodate both financial and non-financial analysis.

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## ANNEX

This annex presents the overview of respondents, disaggregated by country and region, and reproduces the survey tool used, in full.

### Overview of respondents, by country and region

	Users of research	Producers of research	Total
<b>Caribbean</b>			
Bahamas	2		2
Barbados	1	4	5
Dominican Republic	2		2
Guyana		2	2
Jamaica	9	3	12
Suriname	1		1
Trinidad and Tobago	3	2	5
<b>Total Caribbean</b>	<b>18</b>	<b>11</b>	<b>29</b>
<b>Central America</b>			
Costa Rica	2	3	5
El Salvador	1	1	2
Guatemala	1	5	6
Honduras	1	2	3
Nicaragua		5	5
Panama		2	2
<b>Total Central America</b>	<b>5</b>	<b>18</b>	<b>23</b>
<b>South America</b>			
Bolivia		15	15
Ecuador	9	13	22
Paraguay	13	15	28
<b>Total South America</b>	<b>22</b>	<b>43</b>	<b>65</b>
<b>Other</b>			
Other (please specify)	4	10	14
<b>Total Other</b>	<b>4</b>	<b>10</b>	<b>14</b>
<b>Total general</b>	<b>49</b>	<b>82</b>	<b>131</b>

### SURVEY: Research and Policy Use in Small Latin American and Caribbean Countries

- Introduction and Context
- Questions for Researchers Only
- Questions for Research Organizations Only
- Questions for Policy Actors Only
- Research Needs and Priorities