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Understanding the changing context for Research for Development (R4D) in Latin America and the Caribbean since 2019

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About OTT

OTT is a global consultancy and platform for change. We support and strengthen the work of research organisations, foundations, governments and non-governmental organisations in support of better-informed decision-making. Through our consultancy work, we develop tailored solutions to specific challenges. With services spanning research, learning facilitation, strategy and evaluation, we partner with organisations to drive evidence-informed change. Through the On Think Tanks platform, we build, nurture and support a global community of people working in and with think tanks and their funders.

About Instituto Veredas

A Brazilian non-profit, non-partisan organisation that aims to bring awareness among public policymakers, universities and civil society of the importance of evidence-informed policymaking processes. We approach scientific data with knowledge-translation tools, adapting communications to meet our audience's needs. We value transparency and believe that policy debates are only possible when every person can understand and form their own opinions concerning public matters.

About Hub LAC

The Latin American and the Caribbean Evidence Hub (Hub LAC) articulates and mobilises actors around evidence-informed policies (EIP) to respond to shared challenges in Latin America and the Caribbean. Hub LAC wants to be a meeting point between governments, academia, universities and civil society. It is co-directed by the Caribbean Centre for Health Systems Research (CCHRSD) in Trinidad and Tobago; the Evidence-Informed Health Policies Unit in the Chilean Ministry of Health; the Unit of Evidence and Deliberation for Decision Making at the University of Antioquia in Colombia; and Instituto Veredas in Brazil.

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Executive summary

The research for development (R4D) ecosystem in Latin America and the Caribbean (LAC) is experiencing significant transformation influenced by various macro and micro trends. These trends have profound implications for actors within the ecosystem, including research producers, communicators and disseminators, users of evidence, and funders of R4D. Understanding the impact of these trends on actors is crucial for fostering effective research collaboration, evidence-based decision-making and sustainable development in the region.

Drawing on inputs from experts, existing literature and consultations with regional actors, this report aims to highlight the transformative changes occurring in the R4D ecosystem and offer strategic recommendations to help stakeholders navigate these trends effectively.

We identified the following macro-level trends shaping R4D in Latin America and the Caribbean since 2019:

- The global economic crisis: This has prompted governments and development actors to seek innovative solutions and strategies to address economic challenges.
- Political polarisation: Politics across the region have become increasingly polarised during the past few years, often hindering consensus and effective policymaking.
- Growing distrust of public institutions: This trend could potentially drive efforts to enhance transparency, accountability and responsiveness in the R4D ecosystem. However, in reality, it has mostly hindered effective collaboration among researchers, policymakers and the public. This creates barriers to the uptake and utilisation of evidence.
- Increasing focus on climate change: Research agendas have been increasingly incorporating sustainability and environmental considerations.
- COVID-19 pandemic: The pandemic has catalysed and heightened stakeholders' awareness of the challenges and opportunities in the region. It has also built momentum to strengthen the R4D ecosystem, enhance research collaboration and promote evidence-informed policies.
- Public perception of science and evidence: The region has witnessed changes in people's perceptions and expectations around the role of science ecosystems, cross-country collaboration, and evidence-based decision-making; some are observing increased public awareness, trust and demand for evidence-based policies and others are seeing the effects of public scepticism, misinformation and a lack of scientific literacy.
- Multipolarity in the region: The emergence of new actors, such as China, has fostered a multipolar environment within the regional R4D ecosystem.

In terms of micro-level trends and implications, we identified:

- important growth of the R4D ecosystem in the region,
- the emergence of data-driven initiatives,
- increased technocratic capacity,
- the relationship between gender and equality, and
- limited funding and competing agendas within the R4D ecosystem.

These trends have far-reaching implications for the various actors in the R4D ecosystem. Research producers face challenges in securing funding and ensuring project sustainability, but they can leverage technology to enhance their capabilities and embrace interdisciplinary approaches. Communicators and disseminators of research face resource constraints and misinformation, necessitating the adoption of alternative communication strategies and the engagement of diverse audiences. Users of evidence, including policymakers and practitioners, confront limited financial resources and erosion of public trust, underscoring the importance of transparency, evidence uptake and engagement in knowledge-exchange platforms.

Based on our analysis of the key trends shaping the R4D ecosystem in the LAC region, we have derived several strategic recommendations for an effective response to the evolving landscape:

- **Foster collaboration and knowledge exchange**: Support funding initiatives that promote national, regional and international research networks, facilitating collaboration among researchers, policymakers and practitioners in LAC.
- **Strengthen data governance**: Fund initiatives that strengthen data governance frameworks in LAC – addressing data privacy concerns, promoting open data initiatives, and developing ethical guidelines for data collection, storage and sharing.
- **Embrace technological innovations**: Explore partnerships and funding opportunities to support the adoption and integration of emerging technologies, such as Web 3 and ChatGPT (and other large language models), into the R4D ecosystem in LAC. More understanding is needed about the implications of emerging technologies.
- **Address funding gaps and competing agendas**: Strategically support projects that fill critical gaps in the R4D ecosystem, focusing on underrepresented topics, early-stage innovations and areas of research that align with sustainable development goals.
- **Engage with emerging actors**: Understand and effectively engage with the presence of emerging actors, leveraging their expertise and resources to strengthen research collaborations and promote equitable partnerships.

These recommendations aim to enhance collaboration, strengthen data governance, leverage technological innovations, address funding gaps and engage with emerging actors. By implementing these recommendations, key actors in Latin America can contribute to the advancement of the R4D ecosystem in the region and promote sustainable development.

1. Introduction and methodology

1.1 About this report

This report is designed to help the International Development Research Centre (IDRC) to gain a comprehensive understanding of the changing context around research for development (R4D) in Latin America and the Caribbean (LAC). The report provides a critical snapshot of the region's current institutional landscape for R4D and analyses the main trends and developments that have significantly influenced the field from 2019 to 2023. It further explores the implications of these trends for actors within the R4D ecosystem.

We have employed a multifaceted research approach to identify the most important macro and micro trends that have affected the R4D ecosystem in the region. Firstly, we conducted a rapid literature review of the extant research and analysis on the R4D ecosystem. This review encompassed reports, research papers, media outlets and commentary to ensure a comprehensive understanding of ongoing regional discussions and debates. Additionally, we engaged in a pulse survey that was widely shared to gather diverse perspectives and inform our analysis.

In an effort to identify emerging trends and issues, we also commissioned think pieces from researchers and thinkers within our network. By leveraging the expertise of OTT's network and collaborating with Instituto Veredas and the Evidence Hub, we were able to draw upon a broad range of insights and experiences for this report.

1.2 Methodology

This report was developed from three main inputs: literature review, pulse survey, and think pieces. Each of these inputs played a crucial role in capturing a comprehensive understanding of the trends that have shaped the R4D ecosystem in LAC.

Literature review

We conducted thorough searches across various databases, websites and repositories, including Google Scholar, IDRC, OECD and IDB, using keywords and concepts related to R4D, research systems/ecosystems and policy, Latin America and the Caribbean, and specific topics relevant to the region. Additionally, we incorporated 'snowball' searches, grey literature and specific documents recommended by experts and the Hub LAC. The inclusion criteria required documents related to R4D in Latin America and the Caribbean, published from 2019 onwards and available in Spanish, Portuguese or English. The review process involved summarising relevant findings from the first 50 results in each database, repository and website. A total of 63 documents – including

news articles, blogs, scientific papers, and books – were then selected for a more detailed analysis, to provide a comprehensive understanding of the R4D landscape in LAC.

Pulse survey and think pieces

To gather information about macro and micro trends in the region, we designed a pulse survey and shared it across the networks of OTT, Instituto Veredas and Hub Lac. The survey is available in Spanish, English and Portuguese and received 18 responses from practitioners and experts in countries such as Peru, Mexico, Ecuador, Trinidad and Tobago, Venezuela, Argentina, Colombia, Costa Rica, Uruguay and Brazil. It was not designed to provide statistically significant data, but rather to complement the literature review by providing additional perspectives for the research. It was highly successful at fulfilling this aim, generating valuable insights from respondents.

To enrich the desk research, the research project incorporated insights from subject-matter experts who contributed their knowledge on emergent issues they forecast will shape the region's Research for Development (R4D) ecosystem in the coming decade. The report benefited from the following contributions:

- Dr. Soledad Quiroz, Vice-President of the International Network for Government Science Advice, shared insights on the transformative role of science advice post-pandemic and its impact on the R4D landscape.
- Julio López, Founder of DataLat, provided a nuanced analysis of data governance challenges and opportunities within Latin America, from an R4D perspective.
- Dr. Amir Lebdioui, Associate Professor of the Political Economy of Development at the University of Oxford, offered an exploration into the use of biodiversity-based knowledge for innovation in Latin America, underscoring the nexus of biodiversity, innovation, and R4D, along with the distinct opportunities and considerations for the region.

These expert insights showcased a depth of expertise and diverse viewpoints, enhancing the research process by illuminating future-oriented trends and observations that may not have been evident through the literature review alone.

2. Research findings

We have classified trends in the R4D ecosystem at the macro and micro levels. At the macro level, the review focuses on the broader social, economic, political or cultural context that shapes LAC's R4D landscape. This level of analysis can be useful for understanding how larger-scale factors, such as government policies, economic systems or cultural norms, impact the production and use of evidence and how change has occurred, or is still occurring, within the R4D ecosystem in the region. The micro-level trends that we have identified may have more immediate or direct impacts on the production and use of evidence in specific contexts.

It's essential to recognise that macro- and micro-level trends are interconnected, mutually reinforcing and dynamic. They do not operate in isolation but rather interact with, influence and shape each other. These trends can also have varying effects in different countries and ecosystems *within* LAC, due to contextual differences. Therefore, understanding these trends helps provide a comprehensive overview of the forces likely to shape the R4D ecosystem in the region, guiding efforts to strengthen research collaboration, evidence uptake, and evidence-informed policymaking.

2.1 Macro-level trends shaping R4D in LAC since 2019

The global economic crisis

The economic crisis in Latin America is a significant macro-level trend that has shaped the region's R4D ecosystem since 2019. This crisis has had far-reaching implications for the R4D community, as governments grapple with maintaining public services and addressing the needs of their populations. The worsening of existing development problems – such as poverty, inequality, and health disparities – has created a demand for evidence-informed solutions, and put pressure on the R4D community to produce high-quality research that can inform policy and practice.

However, governments in the region are likely to face competing demands as they respond to the crisis. The limited resources available may force them to prioritise short-term needs over long-term investments, including research and development. The R4D community must therefore find new ways to demonstrate the relevance and impact of its work within the context of the economic crisis.

The current global situation further reinforces the challenges faced by the LAC region in terms of economic growth (OECD, 2020). In 2023, the three main global economies are expected to experience stalled growth rates. The United States is projected to grow by only 0.7%, the Eurozone by 0.3%, and China by 4.4% (Salazar-Xirinachs, 2023).

For the LAC region, the outlook for economic growth is also modest. The International Monetary Fund (IMF) and the World Bank both project an average growth rate of 1.7%, while the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) estimates 1.2% growth (ECLAC, 2023). The ECLAC projection is also broken down by subregion, with South America at 0.6%, Central America and Mexico at 2%, and the Caribbean at 3.5%.

This low economic growth will have a negative impact on poverty rates, which are projected to remain above 30%. It will also beget challenges for job creation, the maintenance of social expenditure, investment in education, and addressing the increased number of migrants. Consequently, these economic challenges put the region at risk of social unrest as well as financial instability (OECD, 2020; Zovatto, 2023; Salazar-Xirinachs, 2023).

The global economic crisis presents both challenges and opportunities for the R4D ecosystem in Latin America and the Caribbean. While resources may be constrained, the need for evidence-informed solutions to address pressing social and economic issues becomes even more urgent. The R4D community must adapt to this evolving context, demonstrating the value and impact of their research in addressing the needs of the region amid the economic crisis.

Political polarisation and election trends

The recent elections in Latin America have been characterised by significant political polarisation, and this trend is expected to have profound implications for the research for the R4D ecosystem in the region. The emergence of leftist candidates in several countries presents both opportunities and challenges for R4D. At least publicly, these leaders prioritise issues such as social welfare, poverty reduction and environmental sustainability, which helps generate new avenues for research and development in these areas. They campaign on promises of greater social justice and equity, which align with the R4D objectives promoted by IDRC and other development cooperation agencies.

However, the political polarisation – often fuelled by these same leaders – observed in recent elections also creates obstacles to collaboration and knowledge-sharing within the R4D community. Researchers and practitioners may encounter difficulties working together across ideological divides, hindering the progress and impact of their collective efforts.

The Latin America Political Risk Report 2023 sheds light on the prevailing political, economic and societal trends in the region. These trends are characterised by a growing sense of insecurity stemming from widespread organised crime, food insecurity, escalating cyber-attacks and the erosion of democracies due to populism, polarisation and authoritarian proposals. Additionally, the region grapples with poor economic growth, unresponsive governments, unresolved citizen demands and an ongoing migratory crisis (Gedan et al., 2023; Zovatto, 2023). This confluence of challenges

creates many complications for governability in the region – which is regarded as one of the 'biggest headaches for many Latin American governments' (Zovatto, 2023).

The political landscape in Latin America has undergone a notable reconfiguration, with left-wing progressive governments assuming prominence. However, these governments are facing adverse global and regional conditions, including sluggish global growth, high inflation and the aftermath of the pandemic. Consequently, Latin America is experiencing high uncertainty, instability, volatility, political polarisation and a crisis of governability in multiple countries. Moreover, this situation occurs within the dual contexts of weak (and weakening) democratic institutions and the 'electoral super-cycle' (spanning from 2021 to 2024), during which nearly all countries in the region will hold elections (Zovatto, 2023).

The region offers a contrasting political scenario as well. The rise of centre-left, left or progressive governments is matched by the rise of far-right populism, which challenges established institutions and even advocates for military intervention when election outcomes are unfavourable. Although this trend poses a worrying threat to democratic principles, there are some countries that are witnessing the opposite – the preservation and strengthening of democracy – and demonstrating improved quality and resilience (Zovatto, 2023).

The complex interplay of political polarisation and election trends underscores the challenges faced by the R4D ecosystem in LAC. Stakeholders within the R4D community must navigate these challenges, foster collaboration in spite of ideological differences and demonstrate the relevance and impact of their work in this politically charged environment.

Growing distrust of public institutions

Latin American societies exhibit lower levels of trust in public institutions compared to other regions, which has significant implications for the region's R4D ecosystem. This lack of trust distorts citizens' expectations of the government, including its investment in research, science and technology, as people believe that public officials cannot be trusted to invest efficiently in the public interest (Scartascini & Valle, 2021).

The growing distrust of public institutions can lead to ineffective management of public affairs and policies. A lack of citizen confidence in the government's ability to govern effectively and transparently can result in decision-making processes that are influenced by personal interests, corruption or political considerations rather than evidence-based research.

Public distrust and a shrinking civic space are perceived as a major challenge across LAC (Nicolle et al., 2022). Polls conducted by Latinobarometro reveal that a significant percentage of the population in countries like Mexico, Peru and Brazil have low trust in their own communities (Latinobarometro, 2023). Trust in institutions like the

presidency, houses of congress and political parties is also far lower in LAC compared to wealthier economies (OECD, 2019; Vanderbilt University, 2021; Bachelet, 2021).

This scepticism can hinder the allocation of adequate resources and funding to R4D initiatives, which in turn limits their potential to address social challenges and promote sustainable development. Research by the IDB and Vanderbilt University's Latin American Public Opinion Project (LAPOP) reveals that citizens want better public services but are reluctant to fund government programmes to achieve them. For example, although a significant percentage of respondents in high-crime regions express the need for increased police funding, a lower percentage is willing to pay higher taxes. The widespread mistrust of public institutions reduces support for taxes that are needed to finance essential services, leading to a weakening social contract. The distrust, coupled with dissatisfaction with public services, can create a vicious cycle of social discontent (Vanderbilt University, 2021).

Furthermore, the erosion of trust in public institutions can contribute to social crises and unrest. When citizens perceive that their needs and concerns are not being addressed and they lack trust in the government's ability to provide essential services, it can fuel social discontent and protests (OECD, 2020). These social tensions and conflicts can disrupt the R4D ecosystem by diverting attention and resources away from research and development efforts and creating an unstable environment for collaboration and knowledge-sharing among researchers and practitioners.

Box 1. Harnessing Biodiversity Knowledge for Development

Dr Amir Lebdioui, Associate Professor of the Political Economy of Development at the University of Oxford

Amir Lebdioui explores the role of Latin America's biodiversity in advancing Research for Development (R4D). Despite being home to the world's most biodiverse countries, the region has yet to fully convert its ecological wealth into R4D outcomes, often facing the issue of biopiracy. Lebdioui suggests that policy interventions are crucial in nurturing innovation ecosystems that capitalize on biodiversity knowledge for development.

He proposes creating 'eco-labs' in biodiverse areas and strengthening R&D infrastructure to spur innovation, while also emphasizing the need for educational reforms to promote biophilia and interdisciplinary skills necessary for biomimicry—a design approach that emulates nature's patterns. The article underscores the importance of inclusive R4D by enhancing STEM access for indigenous communities, who are integral to this knowledge transfer. Lebdioui's insights point towards building a sustainable and inclusive R4D framework in Latin America, using its natural biodiversity as a springboard for economic and technological advancement.

The lack of trust in public institutions can also impact international collaborations and partnerships in the wider R4D ecosystem. When institutions and researchers from other countries perceive a lack of transparency, accountability and trustworthiness in local institutions, they may be hesitant to engage in collaborative projects or share valuable knowledge and expertise. This can hinder the exchange of ideas, hamper access to international funding opportunities and limit the overall progress of R4D in the region.

Increasing focus on climate change

The increasing focus on climate change by multilateral development banks and organisations is a significant global trend that is shaping the R4D ecosystem in LAC. This trend offers both opportunities and challenges for development actors in the region.

The LAC region is particularly vulnerable to climate change due to factors such as higher temperatures, extreme weather events and its reliance on climate-sensitive sectors like tourism and agriculture (Watkins, 2023; Coda, 2021). Climate change poses significant challenges and causes disruption for economic activities and livelihoods in the region. Furthermore, both the COVID-19 pandemic and the climate crises exacerbate existing inequities, impacting income distribution, poverty rates and national revenues. In particular, natural disasters associated with climate change are pushing a substantial number of people into extreme poverty each year. Addressing these issues is a matter of urgency.

One relevant dimension of this trend is the differential funding opportunities for mitigation and adaptation actions. Mitigation efforts, which focus on reducing greenhouse gas emissions, often attract private sector investments due to potential returns. In contrast, adaptation actions, which aim to build resilience and address the impacts of climate change, rely primarily on donations as they offer fewer commercial incentives. It is important to prioritise adaptation actions not only in budgetary terms but also in considering their future impact on non-climate-related projects, ensuring comprehensive and effective responses based on rigorous science (Watkins, 2023; Titelman et al., 2023).

The increasing focus on climate change creates an opportunity for researchers in LAC to contribute towards developing evidence-based approaches to climate change policy. The research and evidence ecosystem in the region will need to adapt to sustain its relevance and impact in a shifting policy landscape. Developing partnerships with donors can amplify opportunities for research and collaboration in the region.

In addition, strengthening capacities in areas such as digitalisation, innovative agricultural techniques, water management and energy conversion is crucial to the development of ecosystem. This requires input from actors across the system, with necessary actions including the provision of increased financial support for innovation projects, the integration of climate change approaches into professional degrees, and the dissemination of information about climate change impacts across economic sectors. Research centres and academics in the LAC region need to address topics such as climate change finance, environmental regulations and disaster management, and enhance their ability to communicate the implications of climate change to diverse audiences with varying educational levels and information needs.

COVID-19 pandemic

The COVID-19 pandemic has had a profound impact on the R4D ecosystem in LAC, creating both challenges and opportunities. The pandemic has not only exposed the strengths and weaknesses of the research infrastructure but also highlighted the critical role of R4D in responding to such crises.

Box 2. The role of scientific advisory systems in Latin America

Dr Soledad Quiroz Valenzuela, Vice-President, International Network for Government Science Advice (INGSA)

Soledad Quiroz Valenzuela, in her analysis of the role of scientific advisory systems in Latin America, emphasises their significance in addressing the challenges posed by climate change. She highlights the need to enhance science–policy interfaces by establishing stronger links between scientific advisory bodies and policy-making institutions. Regular dialogue and engagement between scientists and policymakers, as well as incorporating scientific expertise into policy formulation and implementation processes, are crucial for effective responses and solutions.

Furthermore, she emphasises the importance of promoting interdisciplinary approaches, encouraging collaboration among scientists from various disciplines to comprehensively address climate-related challenges. Lastly, she underscores the need for knowledge exchange, public engagement and stakeholder involvement in scientific discussions and decision-making processes to ensure transparency, inclusivity and the relevance of scientific advice in shaping the R4D ecosystem in Latin America and the Caribbean.

LAC's investment in health research provided a solid foundation for tackling the pandemic, meaning the region possessed the expertise and resources necessary to conduct vital epidemiological studies (Stanford et al., 2022). However, the region's limited contribution to vaccine research during the initial stages of COVID-19 has underscored the need for increased investment in R4D in order to facilitate a more comprehensive response to future pandemics.

Moreover, the pandemic has revealed a number of vulnerabilities – acting as a lens that has both magnified and brought into focus the weaknesses that were already inherent within the evidence-to-policy ecosystem. Many relevant systems were already grappling

with issues well before the global health crisis hit; for instance, institutions that were chronically underfunded found themselves even less equipped to mount a swift and effective response to the pandemic. National advisory systems, already operating with minimal staff and resources, faced immense challenges in addressing the emergency, leading to delays and inefficiencies. Moreover, in certain countries, the sheer absence of entities like advisory councils meant that governments were left without the necessary guidance or expertise, making it increasingly challenging to devise and implement strategies to combat the pandemic. These instances underscored the pre-existing frailties of the R4D ecosystem, emphasising the critical need for strengthened infrastructure and investment in the future.

The COVID-19 pandemic has also influenced public perception of and trust in science (Wellcome Trust, 2020). There has been an overall increase in perceived knowledge and confidence in scientific expertise; however, instances of misinformation and inadequate political responses have highlighted the need for better integration of scientific evidence into decision-making processes. Furthermore, the pandemic has exposed the limitations of utilising scientific information for clinical management and population health decisions, particularly in the early stages when reliable data was scarce. Expediting transparent decision-making processes that incorporate ethical principles and established methodologies is essential to leveraging evidence effectively.

In the face of the pandemic, different approaches have been observed across the region, ranging from encouraging scientific production to reducing funding and support for research institutions. The latter risks hindering progress within the R4D ecosystem and even potentially eradicating an entire generation of regional scientists; it is essential to prioritise and protect research and development investments in order to prevent this worst-case scenario.

Although the pandemic was a discrete – albeit ongoing – event and not a 'trend' in the conventional sense, it brought about a momentous shift, the consequences of which continue to unfold. Its implications for the R4D ecosystem in the region are far-reaching and yet to be fully understood. While the pandemic has had varying effects on the perception of science and evidence across the region, it has also exposed vulnerabilities in the health and social systems. It remains uncertain whether the lessons learned from this experience will be effectively utilised to inform improved policies and better preparedness for future pandemics.

Public perception of science and evidence

The COVID-19 pandemic has had a significant impact on the public perception of science and evidence in LAC. Although the crisis brought attention to research capabilities in many countries and elevated the political standing of science, it also revealed challenges in establishing effective institutional mechanisms to respond to the crisis, resulting in a lack of trust between scientists, policymakers and the public. Social

media platforms like TikTok, Facebook and YouTube have been instrumental in shaping public sentiment towards science, with both positive and negative implications for the production and use of evidence in policymaking.

Nevertheless, there is a marked positive trend towards the use of evidence in public policy, and many LAC countries are adopting initiatives and programmes aimed at increasing technical capacity and promoting an evidence-based culture in decision-making. The growing public awareness of the importance of evidence has put pressure on policymakers to base their decisions on reliable information. For instance, Panama took a significant step by launching an official national strategy for science diplomacy in 2018, thereby positioning itself at the forefront of regional science diplomacy and highlighting the integration of science, technology and innovation into foreign policy structures in order to align national and international policies with the 2030 Agenda.

Several programmes either implemented or currently under development in LAC, between 2019 and 2023, are contributing to promoting trust in evidence. These programmes, such as the 'Strengthening Capacity for Evidence-Based Health Production' by the Inter-American Development Bank (IDB), the 'Open Science in Latin America' initiative led by multiple research teams in the region, the 'Regional Program for Research in Climate-Adaptive Agriculture' supported by the Inter-American Institute for Cooperation on Agriculture, and the 'Strengthening Research on Renewable Energy in Latin America and the Caribbean' implemented by the International Renewable Energy Agency (IRENA), demonstrate the region's commitment to enhancing evidence-based practices in sectors like health, science, agriculture and renewable energy. Through research, capacity building and collaboration, these programmes aim to foster trust in the reliability and credibility of evidence in LAC (Carneiro et al., 2021; López-Vergès et al., 2021; OECD, 2019; Palmén et al., 2020).

However, challenges do remain, including excessive misinformation and a lack of evidence-informed policies, further compounded by limited funding for research and development in the region. The IDB has reported that only 0.5% of GDP is invested in research and development in LAC, resulting in slow research development, failure to verify information, reduced research capacity and low-quality research (OECD, 2020).

Addressing these challenges requires increased investment in research and development, as well as better integration of scientific evidence into decision-making processes. Instances of misinformation and inadequate political responses to the pandemic, as observed in Brazil, underscore the need for evidence-based policymaking. The barriers to action-orientated research – such as lack of investment, disconnection between researchers, lack of incentives, fragmentation of knowledge and limited learning capacity from experience – also hinder the credibility of and trust in evidence.

In conclusion, while there are challenges with promoting trust in research and evidence in LAC, positive programmes and initiatives have been implemented and show progress in addressing these issues. It is vital for policymakers, researchers and other stakeholders to continue their efforts to promote evidence-informed policies and foster trust in research in the region (CIC, 2022). By prioritising investment, integration and collaboration, LAC can overcome these challenges and build a stronger foundation for evidence-based decision-making.

Multipolarity in the region: How the European Union, the United States and China influence R4D in LAC

So far, LAC countries have been highly reliant on support from the European Union and the United States in creating and sustaining their R4D ecosystems. LAC has historically been the part of the world with the highest approval rating for the US, rooted in foreign assistance, education and cultural ties (Nugent & Campbell, 2021). Diverse research fellowships and partnerships between LAC and US/EU researchers have multiplied in the past decades (i.e., EURAXESS Latin America and the Caribbean, EU-LAC HEALTH, USAID). Nevertheless, since 2018, the region has observed a rising tide of isolationism and 'antiglobalism', with ideological divergence and domestic polarisation (Merke, Stuenkel & Feldmann, 2021). Tensions between the United States and China have impacted the region and are influencing investments and collaborations.

China's growing role in LAC has significant implications for development policies in the region. During the COVID-19 pandemic, China engaged in 'COVID-19 diplomacy' in the region by distributing medical equipment, offering loans for the purchase of Chinese vaccines, and investing in local vaccine production facilities. The Caribbean in particular has been a top recipient of Chinese development finance institutions' most recent loans to LAC (Myers & Ray, 2022). Although these actions have improved China's image and gained it favour with regional governments, they have also raised concerns about dependence on Chinese loans and the potential for debt traps.

China's focus on soft power, including strengthening cultural and educational ties through initiatives such as Confucius Institutes, has helped Beijing build political goodwill with local governments and present itself as an alternative partner to the United States and European states (Ellis et al., 2022). However, some experts who answered our pulse survey fear that China's growing presence in LAC universities may lead to a decline in academic freedom. This could potentially limit the production of content on sensitive topics such as political freedom or censorship. Other experts point to the need to prioritise environmental and social protections concerning the heavily concentrated Chinese demand for primary commodities, which might undermine the LAC region's autonomy in sustainable R4D (Ray & Gallagher, 2016). This can be seen in cases where, for example, certain projects or funding opportunities become contingent on political alignment, thereby limiting the region's independence in

pursuing its R4D objectives. Such dynamics could hinder the development of unbiased, region-specific solutions for sustainable growth.

New technologies

The emergence of new technologies, including artificial intelligence (AI) tools such as ChatGPT and other large language models (LLMs), has the potential to revolutionise the production and use of evidence in LAC. For instance, AI can greatly enhance the efficiency and accuracy of data analysis, enabling researchers to produce evidence more quickly and of higher quality. However, it may also lead to job displacement as routine tasks become automated.

Box 3: Data and emerging technologies: Transforming the R4D ecosystem in LAC

Excerpt from the think piece by Julio Lopez, Co-Founder of Fundacion Datalat (Ecuador)

The R4D ecosystem in Latin America and the Caribbean (LAC) is experiencing a profound transformation fuelled by the rapid advancement of digital technologies and emerging technologies such as AI, blockchain and data analytics. These innovations are revolutionising research and development practices, facilitating the emergence of new research networks and enhancing the effectiveness of development interventions. Open data initiatives, research and innovation hubs, public–private partnerships, data science centres and data-driven startups are shaping the landscape of R4D in the region, fostering innovation, collaboration and the utilisation of data across various fields. This wave of digitalisation and increased data availability is propelling LAC into a new era of research and development, with significant implications for the region's socio-economic development and scientific advancement.

The emergence of AI tools like ChatGPT has significant implications for the production and use of research and evidence. In the rapidly evolving digital landscape, AI-driven platforms like Chat GPT are increasingly becoming crucial players in curating and disseminating information to the public. Given the sheer volume of data on the internet and the growing reliance of users on AI tools to sift through it, there is an emerging imperative for research producers to comprehend the algorithms that drive these platforms. One strategy is to understand and cater to the criteria that AI employs to determine the credibility and relevance of information; this may involve developing transparent research methodologies, crafting clear abstracts, or even generating machine-readable summaries of scholarly works. However, a significant challenge lies in avoiding the temptation to ‘game the system’. Over-tailoring research output to meet

AI's known preferences could risk creating echo chambers, where only specific types of data or perspectives gain visibility. Balancing the quest for visibility with ethical considerations thus becomes essential.

Although the adoption of these new technologies in LAC is still in the early stages, there is growing interest and experimentation in the field across the region. As the benefits and challenges become better understood, more projects and initiatives are likely to emerge in the coming years that aim to leverage these technologies for evidence production and use. It is crucial for policymakers, researchers and other actors in the evidence ecosystem to stay informed about these developments and to work together – both to address challenges and to realise the benefits of these technologies in a way that promotes the public interest.

The migration of research activities to online spaces is a growing trend in the R4D ecosystem in LAC, especially since the COVID-19 pandemic. While online research facilitates greater collaboration and sharing of findings, it also risks excluding researchers and communities without reliable internet access or digital tools and skills. This could limit the diversity of voices and perspectives in the research ecosystem and exacerbate existing inequalities. Moreover, the move towards online research may make it harder to ensure the quality and rigour of findings, with online platforms and databases being susceptible to problems like data breaches and fraudulent activity. It is crucial for the R4D community in LAC to address these challenges and ensure that online research methods are reliable, equitable and inclusive.

In LAC, the current stakeholder ecosystem for AI is fragmented, with numerous actors and limited capacity to drive necessary systemic change. Unlike other regions, LAC lacks a forum to coordinate policy around, public investment in and assessment of the AI landscape. The ECLAC has supported the region in managing rapid technological change by commissioning and producing research on cutting-edge technology like artificial intelligence and implementing policies and programmes that foster digital inclusion and governance (United Nations, 2022; Scrollini & Cervantes, 2022).

Despite the challenges posed by new technologies, initiatives are emerging across the region to mount a response. For example, the Inter-American Institute for Global Change Research (IAI) has established the Science, Technology, Policy (STeP) Fellowship Program. This pioneering initiative aims to strengthen human and institutional capacities around STeP in IAI member countries. The programme prepares Latin American and Caribbean professionals for science–policy interactions through hands-on learning, professional development and mentorship (López-Vergès et al., 2021).

2.2 Micro-level trends and implications

Important growth of the R4D ecosystem in the region

The R4D ecosystem in the LAC region has seen important growth and is now adopting an intersectoral approach. The existing networks and research organisations that are engaging with R4D can be leveraged to achieve even greater collaboration and sharing of knowledge and resources among different stakeholders, including researchers, policymakers and communities. By bringing together diverse perspectives and expertise, networks can facilitate the development of more nuanced and context-specific research, which is essential for effective evidence-informed policymaking.

One example of an intersectoral approach and the benefits of networks is the creation of the Latin American and Caribbean Evidence Hub (Hub LAC), launched in 2022. This organisation works to promote transnational and interdisciplinary collaboration for the institutionalisation of evidence-informed policymaking (EIPM) in the LAC region. In late 2022, Hub LAC facilitated enLACe, a regional meeting to strengthen a common agenda on evidence-informed public policy. During the event, participants identified three priority topics for Hub LAC to focus on in the coming years: 1) Sustainable development, in particular the issue of preserving the environment; 2) The region's Black population and the problem of racism; and 3) Social, economic and urban inequality. Another example of organisational development in EIPM is the creation of the Brazilian Coalition for Evidence in 2021. This is a network of institutions working to unite civil society, academia and public management around evidence-informed policy and knowledge translation for social development (Coalizão Brasileira pelas Evidências, 2023).

While these developments are encouraging, there is still a lack of coordination among research organisations in the region. This highlights the need for greater investment in mapping and promoting articulation between key actors (evidence producers, users and disseminators), as well as building and strengthening these networks. It is also necessary to develop norms and mandates requiring policymakers and government workers to effectively identify, assess and apply evidence in policymaking (Kuchenmüller et al., 2022). Monitoring the interface between policymakers and the knowledge ecosystem must be a priority to ensure that evidence is effectively integrated into decision-making processes.

Evidence demand is increasing in the LAC region, but this is an incremental process and different types of government agencies may require different types of evidence and approaches. Over time, the number of professionals/organisations with the capacity to respond is becoming insufficient to meet the demand. Collaboration within and between countries in the LAC region is growing, but language barriers still make it hard for intra-regional collaborations to sustain routines, engage stakeholders and disseminate their results. There is an increasing need for capacity building on EIPM as

a field, and a demand for training in innovative knowledge translation methodologies for evidence producers and disseminators and for government members. A number of collaborations between institutions have been established in order to supply this increasing demand for EIPM literacy.

In fact, the offer of courses or programmes on EIPM has increased over the last five years, with most being run online (both synchronously and asynchronously) and in English. One regional initiative, developed by the University of Antioquia in Colombia in collaboration with the University of São Paulo in Brazil, engaged postgraduate students – who were Spanish and Portuguese speakers, respectively – in a joint course. The Brazilian Coalition for Evidence also developed two editions of an online introductory course on EIPM in Portuguese and a map of international courses related to EIPM.[1] The second edition of the coalition's course was designed for participants from diverse gender and race perspectives, aiming to engage a broader scope of civil society stakeholders in the equity dimension of EIPM.

Emergence of data-driven initiatives

In recent years, the LAC region has witnessed a growing trend towards data-driven initiatives within the R4D ecosystem. This micro trend reflects increasing recognition of the potential of data and emerging technologies to drive innovation, inform evidence-based decision-making, and address complex development challenges in the region. Researchers in LAC are adopting data-driven research approaches and harnessing the power of diverse datasets – including big data, open data and geospatial data – to gain a deeper understanding of social, economic and environmental dynamics in the region. These data-driven approaches enable researchers to identify patterns, trends and correlations that were previously challenging to discern, thereby facilitating evidence-based policy recommendations and innovative solutions to regional challenges.

Collaboration and partnerships play a crucial role in data-driven initiatives within the R4D ecosystem in LAC. Researchers are increasingly collaborating with governments, civil society organisations, private-sector actors and international development agencies to access and share data, pool resources and develop innovative solutions. These collaborations foster interdisciplinary approaches, enrich data quality and diversity, and promote knowledge exchange, ensuring that data-driven initiatives in LAC are comprehensive and impactful.

Efforts are being made to enhance data accessibility and build the capacity of researchers in LAC to effectively utilise data-driven approaches. Initiatives are underway to improve data infrastructure, promote open-data policies and provide training on data collection, analysis and visualisation. These endeavours aim to bridge

[1] Available at: https://coalizaopelasevidencias.org.br/cursos/

the data gap and empower researchers with the necessary skills and resources to engage in data-driven research. Furthermore, capacity-building programmes focus on strengthening ethical considerations, data privacy and data governance to ensure responsible and inclusive data practices.

However, data-driven initiatives in LAC also face challenges. Limited data availability, data quality issues, data privacy concerns and disparities in data infrastructure across the region hinder the full realisation of the potential of data-driven approaches. Efforts are needed to address these challenges by strengthening data governance frameworks, promoting data standards and interoperability, and building trust among stakeholders. Additionally, investments in data literacy and data management capacity are crucial to ensure researchers can effectively utilise data-driven approaches.

Increased technocratic capacity

Technocratic capacity has significantly increased among government workers and thereby improved the demand for evidence in recent years, which has positively impacted the region's development. The COVID-19 pandemic acted as a 'stimulus' to improve the technical and scientific capacity in the LAC region. There has been progress in creating and using technological tools, developing standards/shared protocols, and the dissemination of knowledge by researchers and knowledge intermediaries (Romão, 2020). In Brazil alone, between 2016 and 2019, 952 civil servants received specialist certification in evidence-informed policymaking (Silva et al., 2022).

Even during governments that are considered populist, there have been possibilities for internal collaboration among technocrats and leaders. Populists seem more willing to listen to science when it does not clash with the fulfilment of their mandate or when they face significant restrictions on their governing options in the absence of input from experts. Thus, understanding what incentives and restrictions are in place, and how researchers can build social and political coalitions to support technocrats within governments, is key for the region (Barrenechea & Dargent, 2020).

Limited funding and competing agendas

There is limited funding for R4D, particularly from local sources, and the available funding is not enough to cover emerging issues. Dollar depreciation and gross national product growth in the region may play a role in how governments fund research (Becerra-Posada et al., 2021). LAC organisations pursuing collaborative and innovative R4D efforts seem to have a remarkable dependence on funding from the Global North. Fundraising is a vital and critical capacity gap, as many organisations and initiatives lean heavily on these external sources, making them vulnerable to shifts in international funding priorities and dynamics.

Since 2019, there have been numerous challenges related to accessing finance for research in certain areas of LAC. There is also a need to align funders' expectations regarding the fact that opposition from conflicting business or government goals may ultimately determine whether projects result in changes to practice or policy (Bleecker et al., 2021).

National development banks have an important role to play in supporting innovation. The World Bank, the Inter-American Development Bank (IDB) and the Corporación Andina de Fomento – Banco de Desarrollo de América Latina (CAF) are examples of such multilateral partners active in the region. However, different political cycles result in varying levels of autonomy for partners in determining areas of interest. Some governments designate specific sectors as the primary focus for innovation support, whereas more conservative governments (such as Chile) prioritise support for cross-cutting dimensions such as entrepreneurship (Carreras et al., 2022).

The COVID-19 pandemic highlighted the need for rapid and responsive research in the region, but limited funding from local sources may have hampered the ability of local researchers to conduct this research. While issues such as climate change, health and migration have gained increased attention, there are still important topics that are not being adequately addressed in research agendas. The lack of funding for emerging issues such as digital rights and digital democracy may limit the region's ability to respond to emerging challenges related to the digital transformation of knowledge production and use.

Gender and equality in R4D

In a scenario of political uncertainty, women and girls are more vulnerable to undesired social outcomes. Just one example of this is the apparent relationship between government corruption and the exposure of women and girls to human trafficking and sexual exploitation (Transparency International, 2023). As primary caretakers for their families, women are often more exposed to experiencing sexual extortion – or 'sextortion' – when accessing a government service, like health care or education (Pring & Vrushi, 2019).

Despite significant strides in women's representation within higher education in LAC, disparities remain within the region's R4D landscape. Data provided by Bello and Estébanez (2022) illustrates this journey: in 2020, female representation in higher education was at 56%, while 44% of professional researchers were female. Therefore, although these figures indicate that the region is progressing towards gender parity, there are still gaps to be bridged. In addition, while capacity building through governmental and private efforts has led to higher inclusion and training of women overall, inequalities remain in several countries and within certain disciplinary sectors (Bello & Estébanez, 2022), including science, technology, engineering and mathematics

(STEM). Prejudices persist across professional circles and affect the career development of female researchers and professionals working in R4D systems and enterprises (OECD, 2020).

Access to higher education has also increased overall but remains unequal. Most students who access higher education belong to the richest families – compared with a low percentage from low-income families. Furthermore, completion rates are low across the whole region, especially in the case of Indigenous, Black, and rural people (Guzmán-Valenzuela, 2016). While several countries have implemented affirmative actions for historically disadvantaged groups, access to the most prestigious higher education institutions is still disproportionately easier for white and rich students.

2.3 Key drivers and inhibitors of change in the region's R4D ecosystem and impacts on key actors

The R4D ecosystem in LAC is influenced by various macro- and micro-level trends that shape the opportunities and challenges faced by different countries and contexts across the region. Each of the identified macro and micro trends are shaped by driving forces ('drivers of change') and inhibiting forces ('inhibitors of change') that influence these trends.

The force field analysis below examines the key change and resistance factors associated with the respective macro- and micro-level trends. Identifying these forces can help stakeholders gain a deeper understanding of the dynamics at play and assess the balance between driving and inhibiting forces. The purpose of this exercise is to provide IDRC and other stakeholders with insights to help with:

1. Prioritising actions: Force field analysis provides a basis for prioritising actions and interventions. Stakeholders can focus on strengthening the drivers of change and address or mitigate the inhibitors of change to overcome barriers and challenges.
2. Developing strategies: The analysis helps stakeholders develop targeted strategies to leverage the driving forces and mitigate the inhibiting forces. Strategies can involve resource allocation, capacity building, policy advocacy, collaboration, and fostering partnerships to maximise the positive and minimise negative impacts.

Overall, force field analysis provides a systematic framework for understanding and responding to the complex dynamics of the R4D ecosystem in LAC. It helps stakeholders make informed decisions, identify strategic interventions and navigate the evolving landscape to foster positive change and maximise the impact of research and development efforts in the region.

Macro-level trends	Drivers of change	Inhibitors of change
Global economic crisis	Prompts governments and development actors to seek innovative solutions and strategies to address economic challenges.	Governments and development actors may face competing demands and objectives, leading to limited resources and reduced investments in key sectors such as education and research.
Political polarisation	Growing need for mechanisms that promote inclusive dialogue and consensus-building across the political spectrum, ensuring that diverse viewpoints contribute to robust, evidence-based decision-making processes.	Can hinder consensus and effective policymaking during times of economic crisis.
Public distrust of institutions	Catalyses efforts to enhance transparency, accountability and responsiveness in the R4D ecosystem. This can result in increased demand for evidence-based policies and practices that rebuild public trust.	Can impede progress by eroding confidence in the validity and reliability of evidence. Lack of trust can hinder effective collaboration between researchers, policymakers and the public, creating barriers to evidence uptake and utilisation.
Increasing focus on climate change	Encourages investment in research and innovation to address environmental challenges. Fosters collaboration, knowledge sharing and the development of sustainable practices.	The complexity and magnitude of climate change challenges can inhibit change. Limited resources, technological barriers and conflicting priorities may hinder the translation of research into tangible solutions and policies.
Public perception of science and	Increased public awareness, trust and demand for evidence-based policies can foster an enabling environment for	Public scepticism, misinformation and lack of scientific literacy can inhibit change by undermining trust in

evidence has shifted	research and innovation.	evidence and hindering the adoption of evidence-based practices. Misalignment between public opinion and scientific consensus can impede the use of evidence in decision-making.

Micro-level trends	Drivers of change	Inhibitors of change
Growth in the region's R4D ecosystem	Increasing recognition of the importance of research and development in achieving sustainable development goals. Growing demand for evidence-based policies and practices. Collaboration and networking opportunities expanding the reach and impact of research initiatives.	Limited resources and funding constraints. Institutional barriers and bureaucratic processes. Resistance to change and outdated practices within organisations and institutions.
New technologies, including Web 3 and ChatGPT (and other LLMs)	Movement away from a few centralised institutions or hubs monopolising research. With the influx of new technologies and platforms, research generation and dissemination are becoming more democratised. The digital age has bolstered the capacity for researchers across the globe	Lack of awareness and understanding of new technologies among researchers and policymakers. Privacy and ethical concerns associated with the use of emerging technologies. Limited technological infrastructure and access disparities across the region.

	to collaborate more seamlessly. The introduction of advanced analytical tools and AI in the R4D ecosystem has revolutionised how research is aggregated, analysed, and presented.	
Emergence of data-driven initiatives	Growing recognition of the value of data for evidence-based decision-making. Increasing availability and accessibility of data through digital platforms and tools. Potential for data-driven approaches to address complex challenges and inform policy interventions.	Data privacy and security concerns. Limited technical skills and capacity for data collection, analysis and interpretation. Unequal access to data and limited data sharing mechanisms.
Increased technocratic capacity	Growing expertise and skills in research, technology and innovation. Investment in education and training programmes to enhance technical capacity. Recognition of the importance of evidence-informed decision-making among policymakers.	'Brain drain' and talent migration to other regions. Limited investment in research and development infrastructure. Resistance to interdisciplinary and cross-sectoral collaboration.
Data governance	Recognition of the need for ethical and responsible handling of data. Development of data governance	Complex regulatory environments and lack of harmonisation across countries. Limited awareness and understanding

	frameworks and regulations. Growing demand for transparency and accountability in data practices.	of data governance principles. Challenges in balancing data privacy and data accessibility.
Limited funding and competing agendas	Increasing focus on cost-effectiveness and efficiency in resource allocation. Alignment of funding priorities with national and regional development goals. Demand for innovative funding models and partnerships.	Resource constraints and competing funding priorities. Lack of long-term funding commitments. Limited coordination and collaboration among funders.
Gender and equality	Recognition of the importance of gender equality in research and development. Growing advocacy for inclusive and equitable participation of women in the R4D ecosystem. Implementation of gender-responsive policies and initiatives.	Gender biases and stereotypes within the research and development sector. Limited representation of women in leadership positions. Challenges in addressing intersecting inequalities and promoting inclusivity.

It is important to note that this list of drivers and inhibitors is not exhaustive and may vary across different contexts within the region. Nevertheless, a broad understanding of these forces can help stakeholders identify strategies to amplify the drivers of change and address the inhibitors, leading to a more dynamic and impactful R4D ecosystem in Latin America and the Caribbean.

3. Spotlight on actors

In this section, we will explore the impacts that the trends shaping the R4D ecosystem have on key actors in the LAC region. Although we cannot cover every possible actor across the region, we recognise the diversity of actors operating in different spheres within the ecosystem. To facilitate a comprehensive understanding of these impacts, we have categorised the variety of actors into the following groups: research-producing actors (including networks); communicators and disseminators (such as think tanks, media outlets, NGOs and social movements); users of evidence (including scientific advisory bodies); and funders of R4D (including governments, private funders and foreign entities). It is important to note that there will be overlaps in these categorisations, as actors often engage in multiple roles and collaborations within the ecosystem.

By examining the impacts on these key actors, we aim to shed light on how macro- and micro-level trends are shaping their respective roles and contributions within the R4D ecosystem.

Research-producing actors

Research-producing actors, such as universities, research institutions and think tanks, play a crucial role in generating knowledge and evidence in the R4D ecosystem. The following trends have important impacts on these actors:

- **The economic crisis resulting from the pandemic** has affected funding sources for research-producing actors. Many institutions have experienced budget cuts or funding reallocations, limiting their capacity to conduct research. As a result, these actors may face challenges in sustaining research projects and maintaining research teams.
- **Political polarisation** may affect network formation and collaboration between research organisations – especially at the national level. Coupled with low levels of trust in institutions, this may hinder collaboration between researchers and policymaking bodies (especially where scientific advisory systems are not in place), political parties, the media, and private and civil society institutions.
- **The heightened focus on climate change** necessitates research-producing actors to incorporate sustainability and environmental considerations into their research agendas. This includes studying the impacts of climate change on vulnerable populations, developing sustainable solutions and contributing to policy discussions on climate adaptation and mitigation in the LAC region.
- **The rapid advancements in technology** have revolutionised research methodologies and data collection techniques. Research-producing actors can leverage these technologies to enhance their research capabilities, improve data

collection and analysis processes, and explore innovative approaches to generate evidence.

- **The rise of digital platforms and communication tools** has facilitated global collaboration among research-producing actors. This trend is beneficial for the exchange of ideas, the sharing of resources, and joint research initiatives, leading to the production of more comprehensive and impactful research outputs.
- **The growing prominence of interdisciplinary research approaches** in the R4D ecosystem calls for research-producing actors to foster collaboration across different disciplines and the integration of diverse perspectives to address complex development challenges effectively.

Communicators and disseminators

Communicators and disseminators play a critical role in bridging the gap between research and its intended audiences. This category includes journalists, science communicators and other knowledge brokers. The following trends impact these actors:

- There is a **growing demand for effective science communication** to make research findings accessible and relevant to policymakers, practitioners and the general public. Communicators and disseminators need to adopt innovative communication strategies, including storytelling techniques, visualisations and the use of multimedia platforms to effectively communicate research findings and engage diverse audiences.
- **The economic crisis** can impact communicators and disseminators as media organisations face financial constraints, resulting in reduced coverage of research and scientific news. This may limit the platforms available to communicate research findings, requiring alternative communication strategies and increased use of social media and online platforms.
- Communicators and disseminators may encounter challenges resulting from **political instability and a lack of trust in institutions**. In these contexts, it becomes crucial for such actors to combat scepticism and misinformation by maintaining integrity, verifying information rigorously and establishing themselves as trusted sources of accurate and reliable information.
- **The proliferation of fake news and misinformation** poses a challenge for communicators and disseminators. These actors must navigate through the misinformation landscape, verify and fact-check information rigorously, and promote evidence-based narratives to combat 'fake news' narratives and ensure the accurate dissemination of research findings.
- Communicators and disseminators have an opportunity to raise awareness about **climate change** and its impacts on communities. They can play a vital role in promoting climate literacy, translating complex scientific concepts into

accessible information, and fostering public engagement and action on climate change mitigation and adaptation.

- **Participatory approaches** in communication and dissemination are gaining importance. Actors in this area should involve stakeholders and communities in shaping research messages, co-creating knowledge products, and promoting the relevance and uptake of research evidence at the grassroots level.

Users of evidence

Users of evidence include policymakers, practitioners, development organisations and communities who utilise research findings to inform decision-making and development interventions. The following trends have impacts on these actors:

- **The economic crisis resulting from the pandemic** has posed challenges for users of evidence, particularly in resource-constrained settings. Limited financial resources may hinder their ability to implement evidence-based interventions or access the latest research findings.
- In contexts of **political instability and low trust in institutions**, users of evidence may face challenges in accessing and utilising research findings. The lack of confidence in institutions may lead to scepticism or selective use of evidence, impacting the effectiveness and relevance of policies and interventions. Efforts to enhance transparency, promote evidence uptake and foster multi-stakeholder engagement can help address these challenges.
- **The increasing demand for evidence-informed policy and decision-making** calls for users of evidence to be adept at accessing, interpreting and applying research findings to the design and implementation of effective policies and interventions. Building strong partnerships with research-producing actors and engaging in knowledge exchange platforms can enhance the uptake of evidence in policy and practice.
- **The COVID-19 pandemic** has underscored the importance of evidence-informed decision-making for policymakers, practitioners and communities. Users of evidence had to rapidly adapt their approaches and interventions based on the evolving research findings related to the virus, public health measures and socioeconomic impacts. Access to timely and reliable research evidence has become crucial for effective pandemic response and recovery strategies.

4. Reflections and implications

The R4D ecosystem in LAC is undergoing significant transformation, driven by various macro- and micro-level trends. These trends, such as the economic crisis, erosion of public trust, and the emergence of new technologies, have been shaping the region for a long time. However, what is changing is the increased awareness among stakeholders about the implications of these challenges and the growing capabilities of actors in the region to address them.

The COVID-19 pandemic has had a profound and lasting impact on the R4D ecosystem. It has served as a catalyst for change, highlighting the importance of science ecosystems in the region, the need for cross-country collaboration, and the necessity for governments to effectively utilise available evidence to respond to crises. Recognising the stark contrast in the R4D landscape pre- and post-pandemic, there is a pressing need to capitalise on this newfound momentum and clarity. This involves bolstering the R4D ecosystem, amplifying research collaboration, and championing evidence-driven decision-making.

Furthermore, the COVID-19 pandemic has brought to the forefront the importance of collaboration, evidence-informed decision-making, and the role of research and innovation in addressing complex challenges. Building upon the lessons learned from the pandemic, it is crucial to maintain momentum and further strengthen the R4D ecosystem in LAC. This can be achieved by promoting cross-country collaboration, enhancing data governance frameworks, and investing in technological advancements that enable effective research and knowledge sharing.

In this context, networks play a vital role in connecting experts, practitioners and institutions across the region. IDRC can support and strengthen these networks by providing funding, resources and capacity-building opportunities. Actors in the region are interested and willing to proceed in sharing their experiences and bringing together experts and practitioners from different backgrounds and areas of expertise.

All the trends identified in this report, based on inputs from experts and the existing literature, present both challenges and opportunities for the R4D ecosystem in LAC. The ecosystem has a crucial role to play in providing LAC with the tools and knowledge necessary to respond effectively to the current crises. By capitalising on these trends, investing in research and innovation, fostering collaboration and empowering stakeholders, the R4D ecosystem can serve as an engine for positive change and contribute to sustainable development in the region.

IDRC, as a funder, already works with and supports actors in the region across many areas identified in this report. However, grappling with the multipolarity of the world

and the emergence of new actors, such as China, is essential. Understanding the implications of these shifts and identifying strategic opportunities for collaboration can enhance the impact and effectiveness of IDRC's work in the region. This involves understanding how to engage with emerging actors, leverage their expertise and resources, and ensure equitable partnerships that align with IDRC's mandate and values.

Possible areas for IDRC's attention include:

- **Re-focusing IDRC's research agenda to consider the trends identified in this study as research topics in themselves:** IDRC can help the R4D ecosystem respond to these trends by investing in its own capacity to understand and navigate them as they develop.
- **Fostering collaboration and knowledge exchange**: IDRC can facilitate collaboration and knowledge exchange between researchers, policymakers and practitioners in LAC. This can be achieved by funding initiatives that promote regional and international research networks, platforms for sharing best practices, and capacity-building programmes focused on research uptake and policy influence.
- **Improving citizens' trust in governments, other public institutions and evidence:** IDRC can foster citizen and stakeholder engagement initiatives dedicated to improving trust in governments, other public institutions (such as media and political parties) and in evidence, as well as increasing democratic participation in the R4D ecosystem. This can include funding for knowledge translation, stakeholder dialogues and online mechanisms of participation. It could also include support for the institutionalisation of R4D within governments, the media and political parties, guaranteeing sustainability and resilience in face of political uncertainty and crisis.
- **Supporting technological innovations**: IDRC can explore partnerships and funding opportunities to support the adoption and integration of emerging technologies, such as Web 3 and ChatGTP, into the R4D ecosystem in LAC. This can involve supporting pilot projects that leverage these technologies for data collection, analysis and knowledge dissemination while maintaining ethical considerations and addressing potential biases.
- **Strengthening data governance**: IDRC can harness the growing importance of data in research and evidence generation by supporting initiatives that strengthen data governance frameworks in LAC. This could involve funding projects that address data privacy concerns, promote open data initiatives or develop ethical guidelines for data collection, storage and sharing.
- **Addressing funding gaps and competing agendas**: IDRC can help address the problems of limited funding and competing agendas by strategically supporting projects that fill critical gaps in the R4D ecosystem. This could include funding research on underrepresented topics, supporting early-stage

innovations or providing flexible funding mechanisms to promote long-term sustainability and innovation.

- **Engaging with China and multipolarity**: As the influence of China continues to grow in LAC and within the R4D landscape, it is crucial for IDRC to carefully consider how to engage with this phenomenon in its strategic positioning, future programming, and partnership plans in the region. Understanding and effectively engaging with China's presence in LAC will be important for IDRC, in order for it to navigate and leverage the opportunities and challenges that China brings to the research and development ecosystem in the region.

Additional topics and areas for research in Latin America and the Caribbean

This section provides an overview of the topics identified as priorities by think tanks in LAC and presents them as areas that could inform IDRC's research agenda. This was not part of the original brief from IDRC; rather it emerged during the review process. The main focus of our study was on trends affecting the functioning of the sector and not the sector's research agenda.

To identify topics that are a priority for LAC think tanks – and that could inform IDRC's research agenda – we used data from OTT's State of the Sector Report 2022 (Nicolle, Baertl and Gilbreath, 2022). This report documented the results of a global survey of think tanks. It included insights from 42 think tanks operating in the LAC region, asking survey respondents to identify the topics and areas of research that feature prominently in their organisations' research agendas. While the survey primarily captures the viewpoints of think tanks, its findings can serve as indicators for the perspectives of other stakeholders in the ecosystem. The highlighted topics of interest can guide research entities in pinpointing emerging research areas, while for funders, they can indicate regional priorities, thereby aiding in more strategic allocation of resources.

Table 1. Survey responses from LAC think tanks regarding their research topics

Research topic	Number of responses
Governance	16
Social policy	15
Trade, economics and finance	12
Defence, peace and security	12

Environment and climate change	10
Law, justice and human rights	7
COVID-19 impacts and recovery	6
Health	4
Education	4
Science, technology and innovation	3
Food security and agriculture	2
Gender	2

Source: Nicolle, Baertl and Gilbreath, 2022

The survey findings provide a useful list of topics that could inform IDRC's research agenda. We have explored these topics below, providing valuable context by considering them through the lens of the trends (both macro and micro) that we identified through our research for this report.

- **Governance** was the most frequently mentioned topic, cited by 16 thinktankers as being part of their organisation's research agenda. This indicates a strong recognition of the importance of improving governance structures, policies and practices in LAC. The region faces various governance challenges including corruption, institutional weaknesses and a lack of transparency and accountability. Research in this area can contribute to strengthening democratic institutions, promoting good governance and addressing socio-political issues in LAC.
- **Social policy** was the second most commonly mentioned topic, cited by 15 survey respondents. This reflects the region's need to address social inequalities, poverty and social exclusion. LAC countries grapple with disparities in access to education, healthcare, social protection and basic services. Research in this area can inform the design and implementation of effective social policies, poverty reduction strategies and inclusive development agendas.
- **Trade, economics and finance** was cited 12 times by LAC survey respondents as being part of their organisation's research agenda. The region has a strong dependence on international trade, and research in this area can inform trade policies, enhance economic competitiveness and explore opportunities for sustainable economic growth. Additionally, research on finance and investment can contribute to financial stability, capital mobilisation and the development of inclusive financial systems.

- **Defence, peace and security** was cited 12 times, highlighting the challenges faced by the region including organised crime, drug trafficking, violence and conflicts. Research in this area can contribute to enhancing security policies, promoting peace-building initiatives, addressing root causes of violence and ensuring citizen safety.
- **Environment and climate change** was cited 10 times, reflecting the growing recognition of environmental issues in LAC. The region is rich in biodiversity and natural resources, but it also faces environmental degradation, deforestation, pollution and vulnerability to climate change. Research in this area can inform sustainable development strategies, climate change mitigation and adaptation measures and the conservation of natural ecosystems.
- **Law, justice and human rights** was cited seven times by thinktankers in the survey. The region faces challenges around the rule of law, access to justice, human rights violations and the fight against impunity. Research in this area can contribute to strengthening legal institutions, promoting human rights and ensuring equal access to justice for all.
- **COVID-19 impacts and recovery** was cited by six survey respondents from LAC think tanks. The region has been significantly affected by the pandemic, with disruption to healthcare systems, economic activities and social wellbeing. Research in this area can inform public health responses, economic recovery strategies and social resilience-building efforts.
- **Health** was cited by four thinktankers as being part of their organisation's research agenda. Factors such as urbanisation, demographic changes, the impact of climate change and the effects of pandemics have significant implications for public health in the region. Research efforts must be directed towards understanding and addressing the specific health challenges faced by LAC countries, including healthcare disparities, access to vaccines and treatments, and the long-term effects of the pandemic on physical and mental wellbeing.
- **Education** was also cited four times. The region faces challenges such as educational inequality, limited access to digital infrastructure, and the impact of extended school closures. Addressing these issues through rigorous research and evidence-based interventions is crucial to ensure inclusive and quality education for all in LAC.
- **Science, technology and innovation** was cited by three survey respondents as being part of their organisation's research agenda. This topic plays a crucial role in driving economic growth, fostering social progress and addressing complex challenges in the region. Macro trends such as digital transformation, the need for sustainable development and the quest for knowledge-based economies underscore the importance of this topic.

Another source of information about topics of interest to the R4D community within LAC is the findings of the online Latin America and the Caribbean Evidence Meeting

(enLACe 2022). Participants discussed their priorities for evidence-informed policy-making in the region, citing their interest in topics such as social, economic and urban inequalities; mental health, Black populations and racism; and sustainable development in relation to the environment.

Participants also identified specific demands for capacity sharing, ecosystem mapping, and monitoring. These demands included:

- Training for governments to effectively utilise evidence in their decision-making processes; and training for evidence producers and disseminators in innovative knowledge translation methodologies.
- connections is to enhance collaboration and knowledge exchange.
- Monitoring the use of evidence in policy decision-making. Participants recognised the importance of tracking how evidence is utilised in shaping policies to ensure its effective integration and impact.

The specific priorities and demands identified by the participants during enLACe 2022 reflect their overarching interest in addressing critical issues and improving evidence-informed policy-making in the region.

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