Policies on diaspora in Brazil

POLICY DOCUMENT

UNIVERSIDAD SIMÓN BOLÍVAR
BARRANQUILLA Y CÚCUTA - COLOMBIA | VIGILADA MINEDUCACIÓN

ACREDITACIÓN INSTITUCIONAL EN ALTA CALIDAD
RENOVACIÓN - 8 AÑOS - 2021 - 2029
Resolución 015867 - MINEDUCACIÓN

IDRC · CRDI
International Development Research Centre
Centre de recherches pour le développement international

Canada

Abstract: This study examines the stance of the Brazilian State toward its scientific diaspora, conceptualized as a community of highly qualified professionals working in institutions of science, technology, and innovation (ST&I) abroad. The analysis examines the challenges and opportunities associated with this group's engagement, proposing a transition beyond the traditional return-based policy framework toward models that emphasize knowledge circulation and international scientific cooperation. National literature, though still emerging, converges on three axes: the recognition of the diaspora's strategic potential, the lack of consistent public policies, and the need to institutionalize sustainable forms of engagement. Using a qualitative and documentary methodological approach, the study traces the evolution of Brazilian policies concerning its scientific diaspora. Findings indicate that while recent efforts have expanded the focus from physical repatriation to transnational collaboration, a return-oriented logic still predominates. The paper concludes by advocating for a renewed trust-based partnership between the State and its diaspora to transform globally distributed knowledge into a strategic asset for national development.

Institutional affiliation of the authors

Gabriela Gomes Coelho Ferreira: University of São Paulo (USP). Postdoctoral researcher at the Institute of Advanced Studies (IEA/USP) and STeP Fellow at the Inter-American Institute for Global Change Research (IAI). Specialist in science diplomacy, innovation policy, transnational governance, and the intersection between science, technology, and society. Member of the Executive Board of the São Paulo School of Advanced Science on Science Diplomacy and Innovation Diplomacy (InnSciD-SP). Research interests include democratic infrastructures for national and international science-policy interfaces, territorial development and cooperation, innovation, and emerging technologies.**gabrielaferreira@usp.br**

Ana Maria Nunes Gimenez: University of Campinas (Unicamp). Co-founder and leader of the Research Group on Relations between University and Society (GRUS/Unicamp). Researcher at the Laboratory for Studies on the Organization of Research and Innovation (Lab-GEOPI/Unicamp). Doctor in Science and Technology Policy. Specialist in social studies of science and technology, science and technology policy, the third mission of universities, higher education, academic mobility, and scientific diaspora. **anamarianunesgimenez@gmail.com**

Luisa F. Echeverría-King: Universidad Simon Bolivar, Project Coordinator and Principal Investigator. Doctor of Education Ph.D. Specialist in the internationalization of higher education, science diplomacy, and national and international scientific networks **luisa.echeverria@unisimon.edu.co**

Branislav Pantovic: Universidad Simon Bolivar, Scientific Diplomacy Network in Latin America and the Caribbean (DiploCientifica), Associate Researcher.Doctor of International Affairs and Relations. Specialist in scientific diplomacy, international collaborations, and global affairs. **bpantovic@hotmail.com**

Kleinsy Bonilla: Universidad Simon Bolivar, Organization of Women in Science for the Developing World (OWSD).Researcher and Methodological Expert. PhD in International Cooperation for Development. Specialist in science and technology policies, international cooperation in science and technology, and science diplomacy. **Kleinsy@gmail.com**

Suggested citation

APA:

Ferreira, G., C., G., & Gimenez, A. M. N. (2025). Policies on diaspora in Brazil [Policy document]. Barranquilla: Universidad Simón Bolívar, Barranquilla-Colombia & International Development Research Centre (IDRC).

Chicago:

Ferreira, Gabriela Gomes Coelho, and Ana Maria Nunes Gimenez. (2025). Policies on diaspora in Brazil. Barranquilla: Universidad Simón Bolívar, Barranquilla-Colombia and International Development Research Centre (IDRC).

https://doi.org/10.17081/r.report.2025.11.17129

NOVEMBER 2025

Acknowledgements: This case study was developed within the framework of the project The Venezuelan Scientific Diaspora: Potential for Collaboration and Engagement in the Development of Scientific Ecosystems in the Latin American and Caribbean Region, funded by the International Development Research Centre (IDRC), Grant No. 110706-001, and implemented by Universidad Simón Bolívar (2025–2026).

INDEX

TABLE INDEX

INDEX OF FIGURES

1. Introduction

The objective of this document is to analyze the Brazilian state's positioning toward its scientific diaspora, exploring the challenges and opportunities for its effective engagement. Drawing on a comprehensive review of national, regional, and global literature, as well as documentary analysis, the study seeks to identify points of rupture and continuity in Brazilian policies and to suggest recommendations for a more strategic and enduring approach. The research adopts a perspective that transcends the notion of obligatory return, focusing instead on creating an ecosystem of mutual collaboration.

It is important to note that throughout this text, we use the terms "highly qualified diaspora," "scientific diaspora," and "ST&I diaspora" interchangeably; all three refer to the same group of individuals: Brazilians working in science, technology, and innovation institutions abroad.

The Brazilian literature on this subject forms an emerging body of work that converges around three crucial points: First, the vast potential of the scientific diaspora abroad; second, the scarcity of consistent public policies to harness this human capital; and third, the urgent need to institutionalize engagement mechanisms that are more inclusive and sustainable, as evidenced by Gimenez & Carneiro (2025), Carneiro et al. (2020), and Brum (2024).

Our findings reveal that the term "diaspora" in Brazil, used to describe the international migration of highly qualified Brazilians, is relatively recent —and remains contested. Questions persist about its precise meaning and appropriateness. Notably, diaspora is often conflated with brain drain, as if the two were synonymous. This association is evident across diverse media outlets and among members of Brazil's scientific community, public administrators, and other key stakeholders.

In their study, "Narratives on Brain Drain in Brazil," Carneiro et al. (2022) demonstrate how multiple actors and national press outlets have debated the international mobility of Brazilian researchers. They concluded that public discourse has oscillated between positive and negative portrayals of the phenomenon, depending on each era's social, economic, and political context. Nonetheless, they observed that the language of brain drain has persisted, albeit in varying intensities, throughout. Their analysis situates the views, consensus, and dissensus within Brazilian society —not only regarding the very existence of a highly qualified diaspora but also concerning the roles this diaspora may play and the pertinence of establishing engagement policies. Designing and implementing effective engagement strategies depends not only on political will and resources but also on the level of understanding and consensus about the scientific diaspora's role among directly involved sectors —particularly the ST&I community and public policymakers and administrators.

In response to this context and its historical challenges, Brazil has taken significant steps. The recent Novation Policy jointly issued by CNPq and CAPES aims to modernize the relationship between the state and former scholarship recipients abroad. In addition, the Knowledge Brazil Program, launched in 2023, seeks to attract talent and foster collaboration networks, albeit with a strong focus on repatriation. While promising, both initiatives face questions about their long-term sustainability, given Brazil's history of policy discontinuity and the absence of a solid "social contract" between the state and its scientific diaspora.

2. Review of Literature: National, Regional (LAC), and Global Perspectives

2.1. National Literature: The Brazilian Scientific Diaspora in Perspective

In recent years, the study of Brazil's scientific diaspora has gained momentum, particularly in response to critical contexts such as the COVID-19 pandemic. Scholars, including Carneiro et al. (2020, 2022, 2024), have shown that the Brazilian Science, Technology, and Innovation (ST&I) diaspora is a complex phenomenon characterized by heterogeneous trajectories and diverse motivations. Notably, this community is neither homogeneous nor easily mapped, posing a significant challenge for public engagement policies.

A pioneering study by Carneiro et al. (2020) highlights a conceptual shift away from narratives centered on brain drain toward the idea of knowledge networks, wherein international mobility may represent a potential gain —rather than a loss— when appropriate connection mechanisms are in place. This viewpoint is reinforced by subsequent research (Carneiro et al., 2022), which examines public narratives about the talent flight in Brazil and reveals a tension between discourses of loss and discourses of transnational collaboration. We note that in Brazil, association still exists between the terms diaspora and brain drain, which may help to explain why policies are more focused on repatriation rather than creating solid ties with Brazilians abroad. Examples of this association are found in articles published on official Brazilian government channels, such as the article by Dourado (2023, n.p.) entitled "Brain Drain, the Diaspora of Brazilian Scientists", in which brain drain and academic diaspora were used synonymously, as per the following transcription:

> Brazil may have lost around 6,700 scientists in recent years, who went abroad to continue their research, according to estimates from the Center for Strategic Studies and Management, reported to the Ministry of Science, Technology, and Innovation. Lack of investment, research grants frozen for nine years, and budget cuts for equipment maintenance—the reasons are numerous and complex. However, they have led to the **academic diaspora, also known as the brain drain,** from the country (our emphasis).

Gimenez and Carneiro (2025) further argue for the creation of a more favorable national environment for ST&I activities in Brazil, noting the country's chronic challenges with research funding, policy discontinuity, and the low absorption of doctoral graduates into the domestic labor market. Given these internal constraints, they contend that qualified members of the diaspora will only consider returning or interacting with peers in Brazil if a culture emerges that genuinely values scientists and science, supported by more substantial, more continuous investments in education, science, and technology.

Brum (2024) provides a historical overview of Brazilian policies aimed at its scientific and technological diaspora, marking key initiatives such as the "Ciência sem Fronteiras" program, the Rede Diáspora Brasil, and, more recently, the CNPq's "Knowledge Brazil" program. While acknowledging institutional efforts, Brum underscores recurring problems of policy discontinuity, regulatory fragmentation, and weak inter-institutional coordination.

During the pandemic, spontaneous initiatives emerged that linked Brazil-based networks and scientists abroad, driven more by personal motivations, a sense of shared responsibility, and

informal networks than by clear state strategies (Gimenez et al., 2024). Consequently, the CNPq's recent program targeting young talent overseas was met with both hope and criticism for its limited scope (Carneiro et al., 2024).

Together, Brazilian national literature converges on three core points: the substantial scientific potential residing abroad, the absence of sustained policies to leverage that human capital, and the urgent need to institutionalize engagement mechanisms that are inclusive, diverse, and enduring.

2.2. Regional Literature: Latin America and the Caribbean

At the regional level, Didou-Aupetit (2009) provides a structural analysis of the international mobility of highly skilled human resources in Latin America and the Caribbean, introducing the concept of "knowledge gain" to counter traditional narratives of brain drain. She argues that scientific diaspora can energize innovation, provided that receptive national environments and governance structures exist to value externally produced knowledge.

The International Organization for Migration (IOM, 2022) report reinforces the strategic role of diaspora as agents of sustainable development, calling for governance models in the region that recognize diaspora members as active contributors rather than exceptions. This regional perspective aligns with Brazilian studies, which caution that policies designed solely around return fail to capture the multiple ways in which knowledge can circulate and generate impact remotely.

More recent scholarship has deepened this perspective. Echeverría-King et al. (2022) analyze organized scientific diaspora networks in Latin America and the Caribbean, showing how they already act as stakeholders of science diplomacy by connecting with governments, universities, and non-state actors. Their findings highlight both the potential and the fragility of these initiatives, given the absence of systematic mapping and formal recognition by national policies. Complementarily, Bonilla et al. (2023), in an editorial framing a special issue, argue for reframing diasporas from brain drain to knowledge circulation, emphasizing the importance of sustained policy and institutional practices to engage these communities as long-term partners in development.

This regional perspective aligns with Brazilian studies, which caution that policies designed solely around return fail to capture the multiple ways in which knowledge can circulate and generate impact remotely. A common challenge across the region is the lack of systematic data on qualified diaspora populations, compounded by fragile institutional frameworks and unclear regulatory environments, which undermine long-term linkage and sustainability mechanisms.

2.3. Global Literature: Diasporas, Knowledge, and Development

In the past, skilled diasporas were often viewed as a loss for sending states (brain drain) and a gain for receiving states (brain gain). However, many studies now examine diaspora from the perspective of knowledge, brain circulation, or even brain networks. This literature is based on the idea of mutual benefits, that is, that both sending and receiving countries can benefit (Ciumasu, 2010; Tung, 2008).

It is interesting to consider the relationship between Human Capital Theory[1] (neoclassical economic theory) and the perception of international migration as a "brain drain". The "brain drain" term appeared in the UK popular press as a reaction to the 1963 British Royal Society report, which warned of the loss; —especially to the United States— of qualified professionals, including leading researchers and fellows. The report had a broad impact, fueling debates in the House of Lords and generating extensive coverage in the press, radio, and television (Balmer et al., 2009). Initially, the term described the exodus of skilled workers from wealthy nations; over time, it came to denote the migration of professionals from poorer or developing countries to richer ones, both in literature and political discourse (Gimenez, et al., 2025; Carneiro et al., Carneiro et al. 2022). The central idea of Human Capital Theory (HCT) is that better-prepared individuals, primarily through formal education, are typically more productive, which in turn drives a country's economic growth. In this sense, according to this theory, skilled migration represents a permanent loss of knowledge and skills (Schultz, 1961; Becker, 1964).

However, from the 1990s onwards, a new vision of skilled migration began to develop. Globally, foundational work by theorists such as Robin Cohen, Rogers Brubaker, and William Safran (1991), as well as Khachig Tölölyan (1996), has established the conceptual framework for diasporic identity and transnationalism, underpinning specialized research on diaspora.

Meyer and Brown (1999) introduced the concept of "scientific diasporas" as a novel approach to skilled migration, shifting the focus from talent exodus as a purely negative phenomenon to a strategic perspective that regards expatriate scientific communities as catalysts for national and international development.

Brinkerhoff (2012) extends this argument by calling for an "enabling environment" comprising not only programs but also legal frameworks, incentives, digital platforms, and inclusive narratives that recognize diaspora value beyond territorial boundaries.

Kuznetsov and Freinkman (2013) distinguish between pragmatic (indirect) and administrative (direct) approaches to diaspora engagement. They find that indirect strategies —such as flexible networks and voluntary participation platforms— are more effective. In contrast, direct, bureaucratic schemes often deter the very individuals they aim to attract.

Brown (2000) surveys successful cases from Africa and Asia in which diasporas were embedded in policy design rather than treated solely as beneficiaries, underscoring that inclusion from the outset is key to sustainable outcomes.

In this sense, Shin and Caywood (2025, p. 7) mention the following: "Brain linkage emphasizes the role of transnational social capital through which transmigrants, without permanent return, can foster collaboration across geographic and cultural divides and benefit wide-ranging sectors, such as business, philanthropy, science and technology, and arts and culture".

Reflecting these new visions of the skilled diaspora, many countries are increasingly seeking to engage their diaspora members without requiring them to return permanently. In light of this,

1 The concept of human capital originated from the seminal studies of two Nobel Prize-winning economists: Theodore W. Schultz, awarded in 1971, and Gary S. Becker, awarded in 1992.

various actions have been initiated, including the establishment of formal diaspora institutions and government agencies dedicated to fostering connections with migrants and their descendants. These and other actions are becoming widespread and represent a new response to highly skilled mobility (Gamlen, 2018; Shin & Caywood, 2025).

Conclusion of the Section

Across national, regional, and global literature, there is a growing consensus on the strategic value of scientific diasporas as catalysts of knowledge circulation, innovation, and international collaboration. The Brazilian literature highlights the persistent conceptual ambiguity between diaspora and brain drain, the discontinuity of policies, and the chronic underinvestment in science that undermine sustained engagement. At the regional level, studies by Didou-Aupetit (2009), Echeverría-King et al. (2022), and Bonilla et al. (2023), together with reports from IOM (2022), emphasize both the opportunities and vulnerabilities of diaspora engagement in Latin America and the Caribbean: opportunities in terms of mobilizing networks for science diplomacy and development; vulnerabilities due to the absence of systematic data, weak institutional frameworks, and policy fragmentation. Globally, the literature provides broader conceptual tools —(such as brain circulation, scientific diasporas, and enabling environments)— and empirical lessons from other regions that have moved beyond return-based strategies to embrace flexible, networked, and inclusive models of engagement.

Taken together, these strands of scholarship reveal both convergence and divergence. Convergence lies in the recognition that highly skilled migration is not a zero-sum phenomenon but can be harnessed for mutual benefit when adequate frameworks are in place. Divergence arises in the degree of institutional maturity: while global cases show that embedding diaspora communities in policy design yields sustainable results, Brazil and its regional peers continue to grapple with fragile governance arrangements and contested narratives. This reinforces the need for Brazil to move beyond episodic initiatives and toward the institutionalization of long-term, inclusive, and strategically aligned mechanisms that can transform its scientific diaspora into an enduring partner for national development.

3. Methodology

We adopted an exploratory, qualitative approach to investigate Brazil's stance on international mobility and its highly qualified scientific diaspora. The primary data-collection method was bibliographic and documentary research, drawing on:

- Official documents (resolutions, ordinances, reports, public calls, and similar instruments).
- News releases and official communications from ministries, CAPES, CNPq, FINEP, and the Ministry of Foreign Affairs (MRE).
- Information obtained via formal requests under Brazil's Access to Information Law (Lei n.º 12.527/2011).
- Data and reports provided by Brazilian organizations representing communities abroad.

The process of gathering official data unfolded in three stages:

1. Online surveys of publicly accessible documents directly from government websites.
2. Formal information requests to CAPES and CNPq under the Access to Information Law, which

permits disclosure of non-public data (with anonymized identities) for research purposes.

3. Identification and review of scholarly and gray literature addressing policies toward Brazil's scientific diaspora to supplement and contextualize official sources.

From this consolidated dataset, we traced the evolution of Brazil's policy posture —codified in successive laws and regulations governing the obligations of Brazilian scholarship recipients abroad— and also identified more recent rules establishing opportunities for repatriation and network formation.

4. Case Study Specifics: Activities, Actors, Operationalization, and Institutional Framework

4.1 Brazilians Abroad

According to Brazil's Ministry of Foreign Affairs (MRE), an estimated 4,496,951 Brazilians resided abroad in 2023. This figure is derived from consular and embassy records and represents a projection based on those registrations rather than on national censuses (MRE, 2024).

The geographic distribution of this population is heavily skewed toward North America (45.3%) and Europe (33.6%), followed by South America (13.3%), Asia (4.5%), the Middle East (1.3%), Oceania (1.1%), Africa (0.8%), and Central America and the Caribbean. The ten countries with the largest Brazilian communities are presented in Table 1.

Table 1

Largest Brazilian Communities Abroad (by country/territory)

Country	Estimated Number of Brazilians
United States	2,085,000
Portugal	513,000
Paraguay	263,200
United Kingdom	230,000
Japan	210,471
Germany	170,400
Spain	161,944
Italy	159,000
Canada	143,500
Argentina	101,502

Note: Own elaboration based on Ministério das Relações Exteriores (2024).

At the consular level, five missions: —New York, Miami, Boston, London, and Lisbon— account for over 40% of the total, collectively serving more than 1.8 million Brazilians.

However, these aggregate estimates provide no breakdown by education level or affiliation with science, technology, and innovation (ST&I). Both the MRE and Brazil's national statistics agency (IBGE) have acknowledged this data gap. The 2010 Population Census was the only one to include specific questions on Brazilians living abroad, addressing origin, destination, and demographic profile; however, these questions were not replicated in the 2022 Census (IBGE, 2019; Carneiro et al., 2020).

Discrepancies among sources are stark. In 2010, while the census reported approximately 491,645 Brazilians abroad, MRE projections ranged from 2 to 3.7 million, and the International Organization for Migration (IOM) estimated between 1 and 3 million. These variances highlight the challenge of capturing contemporary mobility patterns, characterized by multiple trajectories, temporary stays, and digital connections.

These limitations highlight a critical issue: there are no comprehensive official statistics on the number of Brazilians with higher education residing abroad, nor on those who comprise the so-called "scientific diaspora." The absence of disaggregated data hinders effective policy planning and limits efforts to engage and leverage this qualified human capital.

Identifying, mapping, and connecting this highly skilled diaspora must become a strategic priority for Brazil. Achieving this will require strengthened inter-institutional coordination, robust information systems, and a long-term vision that moves beyond episodic or fragmented approaches.

4.2. Synthesis of the Brazilian State's Positions Toward Its Scientific Diaspora

A chronological reading of Brazil's policy instruments reveals at least five distinct phases in the state's approach to international migration and return of scholarship recipients.

First period - mandatory return (1980s–present)

From the 1980s onward, Brazilian agencies such as CNPq and CAPES implemented "conservation" policies designed to prevent permanent brain drain by requiring scholarship recipients to return to Brazil for a period equal to their time abroad, or face financial penalties (Brum, 2024).

Second period: structured repatriation (2011–2016)

The 2011 Young Talent Support Program (PAJT) introduced voluntary return incentives for researchers abroad. In 2017, CAPES continued this model under the Young Talent Scholarships (BJT) scheme. Both programs, however, reached a limited number of beneficiaries and lacked mechanisms for sustained scientific integration (Brum, 2024).

Third period - network-based engagement (2012–2017)

Coordinated by the Brazilian Agency for Industrial Development (ABDI), the Rede Diáspora Brasil organized events, seminars, and symbolic recognitions (notably the "Prêmio Diáspora Brasil") while mapping researchers abroad. Its discontinuation reflected political turnover and the lack of a permanent legal framework (Gimenez & Carneiro, 2025; Brum, 2024).

Fourth period - scientific diplomacy and symbolic commitment (since 2017)

Through the Innovation Diplomacy Program (PDI), the Ministry of Foreign Affairs has begun hosting scientific events and informal mapping exercises in its embassies and consulates. Though not formal public policy, these initiatives signal a shift toward science diplomacy grounded in recognition and knowledge exchange (Gimenez & Carneiro, 2025; Brum, 2024).

Fifth period - new linkage and mobility initiatives (2023–2025)

In 2023, CAPES and CNPq jointly developed the Novation Policy to replace mandatory return with obligations that benefit Brazil's ST&I system—such as establishing international collaboration networks. Concurrently, CNPq launched the Knowledge Brazil Program to foster collaboration between domestic institutions and diaspora members, particularly early-career researchers, while also supporting Repatriation and retention (Gimenez & Carneiro, 2025). Although these programs foreground network building, challenges remain in institutionalization, funding, and inter-agency coordination.

Specific initiatives of the state of São Paulo: the case of Fapesp

As a federative state, Brazil also has strong subnational actors in the CT&I system. Among them, FAPESP stands out for its forward-looking approach to diaspora engagement. Its São Paulo Excellence Chair (SPEC) enables internationally based scientists to maintain foreign affiliations while leading research groups in São Paulo (FAPESP, 2012).. In 2025, FAPESP issued three targeted calls:

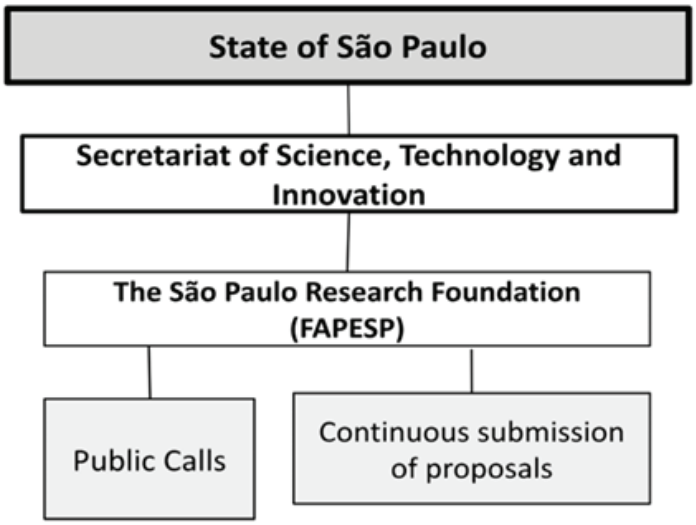
- InTheGra for senior researchers with established careers abroad (FAPESP, 2025a).
- A joint FAPESP–Butantan Institute grant for those with at least two years overseas (FAPESP, 2025b).
- A call for early-career researchers both —Brazilian or international individuals— working abroad (FAPESP, 2025c).

These measures underscore a forward-looking understanding of the diaspora as active contributors, prioritizing the circulation of knowledge rather than a definitive return to the homeland.

Nevertheless, as Gimenez and Carneiro (2025) observe, even the recent Knowledge Brazil Program remains more focused on Repatriation and retention than on fostering partnerships: two of its three calls explicitly target the return.

Figure 1.

An overview of governance at the state level: the case of FAPESP



These five periods reveal how Brazil's approach has gradually shifted from coercive measures of mandatory return to more flexible, though still incipient, mechanisms of circulation and collaboration. The case of FAPESP illustrates that subnational actors can pioneer alternative models, but such initiatives remain exceptions rather than the rule. Overall, the trajectory points to an incremental learning process, in which recognition of the diaspora's value is growing, yet remains uneven and insufficiently institutionalized. The following section examines in greater detail how the Brazilian governance architecture, either considering federal and subnational efforts, shapes the implementation and sustainability of these initiatives.

Figure 1 provides an overview of the governance structure for science, technology, and innovation at the state level in São Paulo, specifically of the São Paulo Research Foundation (FAPESP). At the top of the hierarchy lies the State of São Paulo, which defines broad policy priorities and allocates resources. Beneath it, the Secretariat of Science, Technology, and Innovation is responsible for coordinating and implementing these policies within the state system.

The São Paulo Research Foundation (FAPESP) operates as an autonomous agency linked to the Secretariat, serving as the main operational and funding instrument for research. Its activities are structured around two main mechanisms:

- Public Calls, which define thematic or strategic priorities through specific funding programs; and
- Continuous Submission of Proposals, which allows researchers to submit projects on a rolling basis, ensuring flexibility and long-term support for scientific initiatives.

This governance arrangement illustrates a decentralized and institutionally robust model, in which the State of São Paulo combines strategic governmental planning with the operational autonomy of FAPESP, fostering continuity, innovation, and sustainability in science and technology policy. The following section examines in greater detail how the Brazilian governance architecture, either considering federal and subnational efforts, shapes the implementation and sustainability of these initiatives.

4.3 Main Brazilian Ministries and Federal Agencies linked to education, science, technology, and innovation

In the context of science, technology, innovation, and education policies in Brazil, several agencies play crucial roles, operating under the aegis of strategic ministries for national development. Figure 2 below presents the actors involved at the federal level in postgraduate studies, international mobility, and/or research and innovation funding, which are directly related to the financing of the policies discussed in items "4.4 - Novation Policy" and "4.5 - Knowledge Brazil Program: attracting and retaining talent".

Ministry of Science, Technology, and Innovation (MCTI)

The Ministry of Science, Technology, and Innovation (MCTI) is responsible for formulating and implementing the national science, technology, and innovation policy. Its role includes promoting scientific and technological research, developing innovative technologies, training qualified human resources, and disseminating knowledge, all of which aim to advance the country's economy and society. To fulfill its mission, the MCTI relies on funding and implementation agencies that drive the innovation ecosystem (MCTI, 2024).

Linked to the MCTI are:

- **National Council for Scientific and Technological Development (CNPq):** The primary function of this agency is to promote scientific and technological research and train human resources for research in Brazil. The CNPq (National Council for Scientific and Technological Development) awards scholarships and research grants in various forms (master's, doctoral, postdoctoral, and others), supports scientific and technological research projects, and promotes scientific cooperation, representing a fundamental pillar of the national knowledge base (Brasil, 2022). CNPq receives federal funds directly from the National Treasury and may also obtain funding from international agreements and partnerships, as well as institutional partnerships and specific science and technology funds, such as the National Fund for Scientific and Technological Development (FNDCT (Brasil, 2022; CNPq, 2021; Revadam, 2025).

- **Funding Authority for Studies and Projects (FINEP):** Finep acts as the leading agency promoting innovation and scientific and technological research in companies, universities, and research institutes. Its role is crucial in financing technological development projects, business innovation, research infrastructure, and innovative entrepreneurship, contributing to competitiveness and sustainable growth (Finep, 2025a). It primarily operates with resources from the National Fund for Scientific and Technological Development (FNDCT), the Funds for Technological Development of Telecommunications (FUNTTEL), which comprises budget transfers from the federal government, contributions from companies, royalties from natural resource exploration (such as oil and mining), and revenue from international loans and financing. FINEP can also raise funds from external sources, such as the World Bank, and other financial institutions, in addition to its own revenue from the return on loans granted (Finep, 2025b).

Ministry of Education (MEC)

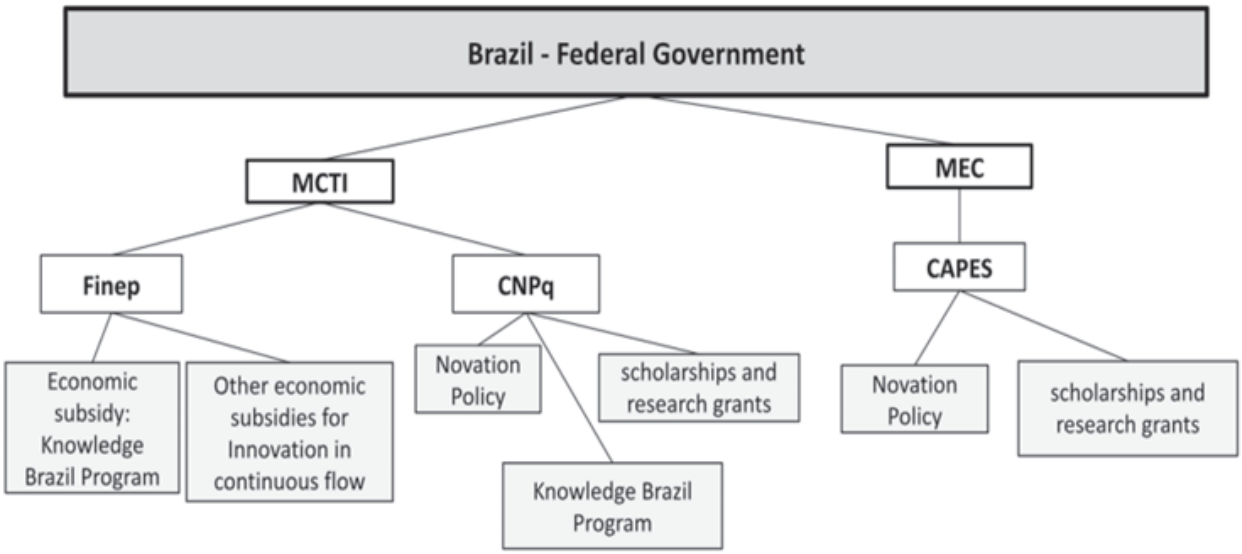
The Ministry of Education (MEC) is the agency responsible for Brazil's educational policy, encompassing all levels of education, from basic to higher education. Its work aims to ensure access, retention, and quality of education at all levels and modalities (Brasil, 2024).

Linked to the MEC is:

- **Coordination for the Improvement of Higher Education Personnel (CAPES):** a public foundation linked to the Brazilian Ministry of Education (MEC). Its role is fundamental and strategic for the development of higher education, scientific and technological research, and the training of high-level human resources in the country. Among its most notable roles are: 1) evaluating Brazilian postgraduate programs, considering various aspects, such as the quality of the faculty, intellectual production, infrastructure, graduate training, and the social impact of programs; 2) granting scholarships to master's, doctoral, and postdoctoral students in Brazil, as well as various types of scholarships for studies abroad; and 3) fostering research and innovation through calls for proposals to fund research projects in strategic areas or aimed at improving postgraduate programs (CAPES, 2024). CAPES's financial resources come from the Federal Government's budget allocation, approved annually by the National Congress under the Annual Budget Law (LOA). Its budget is intrinsically linked to the Ministry of Education (MEC). CAPES may obtain funding from other sources, such as international agencies, scientific cooperation

agreements, and private partnerships. However, its primary source of funding comes from the federal government (CAPES, 2022).

Figure 2.
Education, Science, Technology, and Innovation: a summary of governance at the federal level



The relationship between these public entities and other actors in the Brazilian National Science, Technology and Innovation System occurs through the financing of research and innovation activities through the granting of master's, doctoral, postdoctoral, doctoral and research project scholarships (CNPq and CAPES), and through the offering of reimbursable and non-reimbursable financing public and private Scientific, Technological, and Innovation Institutions (ICT)[2], or through equity investments in companies (FINEP).

In short, these agencies, with their respective ministerial affiliations, work in a coordinated manner to strengthen the triad of education, science, and innovation. These ministries and agencies are directly related to the implementation of the policies detailed in items 4.4 and 4.5. In Brazil's multilevel governance system, where federal and state institutions operate with overlapping responsibilities, coordination can be a complex task. The need to reconcile divergent mandates, budgetary cycles, and evaluation logics often translates into policy fragmentation and duplication of efforts. Despite the existence of a robust institutional architecture encompassing the MCTI, MEC, and their respective funding agencies (CNPq, FINEP, and CAPES), coordination among these actors is far from simple.

This multilevel governance environment is also impacted by proactive state-level actors such as FAPESP, able to design and fund science and technology (and education, when considering its impacts on universities) policies. While mechanisms such as the National Fund for Scientific and Technological Development (FNDCT) or joint calls for proposals provide occasional points of

2 Term created by the Innovation Law (Law No. 10,973/2004).

convergence, there is still no permanent governance framework capable of integrating education, science, and innovation with diaspora engagement. This lack of articulation undermines the state's capacity to design long-term strategies, leaving diaspora-related programs vulnerable to political shifts, resource fluctuations, and institutional silos.

4.4 The Novation Policy

In this subsection, we examine in depth a specific legal mechanism known as the "novation institute." Historically, Brazil's approach to international mobility has been founded on talent retention. Scholarship recipients were required to return to Brazil upon completing their foreign training and remain for a period equal to the time spent abroad, under penalty of repaying all funds received, plus interest and potential fines. These clauses were contractually acknowledged by scholars when signing their grant agreements.

However, the Civil Code of Brazil provides for novation, —replacing one obligation with another,— under Article 360: "Art. 360. Novation occurs […] when the debtor and creditor agree on a new obligation to extinguish and replace the original one" (Lei No. 10.406/2002).

Within CNPq, novation was introduced quietly in internal rules (RN-023/2012, RN-024/2014, RN-013/2016), always tied to the reimbursement of scholarship funds. The 2012 and 2014 regulations limited novation to "exceptional cases" demonstrably vital to national scientific and technological development. In 2015, novation was fully suspended; by 2016, the "exceptional" criterion gave way to a requirement of "strategic relevance to Brazil's ST&I" (Gimenez & Carneiro, 2025).

At CAPES, novation was authorized only briefly between October 2016 (Portaria 176/2016) and mid-2017 (Portaria 167/2017), then reinstated in December 2018 (Portaria 291/2018) (Gimenez & Carneiro, 2025). A close reading of these ordinances and resolutions (CAPES, 2016; 2018; CNPq, 2012, 2014, 2015, 2016) reveals that unclear, non-transparent rules generated legal uncertainty and rendered approvals both exceptional and unpredictable.

In December 2023, CNPq (Portaria 1594/2023) and CAPES (Portaria 287/2023) jointly published the Novation Policy for Scholars and Former Scholars Abroad, formalizing and expanding the novation institute. Key advances include:

- More explicit eligibility criteria and application requirements.
- Enhanced transparency through dedicated public calls.
- Introduction of partial novation and broader beneficiary categories.
- Incentives for building international ST&I cooperation networks.

Pursuant to Brazil's Access to Information Law (Lei No. 12.527/2011), we requested data from both agencies on the number of novation requests granted and denied over time. On July 29, 2025, the CNPq reported that it lacked "automated mechanisms to tally approved and denied novation processes" (personal communication). CAPES responded on August 6, 2025, providing figures for each ordinance and the two calls under the 2023 Novation Policy (Table 2).

Table 2
Novation Requests at CAPES, 2016–2025

Status	Call Nº 10/2025	Call Nº 15/2024	Ordinance Nº 291/2018	Ordinance Nº 176/2016	Total
Approved		62	32	4	98
Under review	47				47
Not approved		75	110	51	236
Total	47	137	142	55	381

Note: According to information provided by CAPES (personal communication, August 6, 2025).

The data show that under Ordinance 176/2016, the non-approval rate was 92.9% (51 denials vs. four approvals). Under Ordinance 291/2018, refusals fell to 110 out of 142 requests, lowering the denial rate to approximately 77.5% (32 approvals vs. 110 denials). For Call 15/2024 (2023 Novation Policy), the refusal rate dropped significantly to 54.7%, although the overall 2016–2024 denial rate remains around 61.9%. While a 54.7% rejection rate is still high, access to novation has clearly broadened. Finally, Call 10/2025 saw a marked reduction in the total number of applications compared to the previous call.

4.5 Knowledge Brazil Program: attracting and retaining talent

In 2023, the CNPq (National Council for Scientific and Technological Development) launched the Knowledge Brazil Program, using resources from the National Fund for Scientific and Technological Development (FNDCT). This fund aims to finance innovation and scientific and technological development, promoting Brazil's economic and social development (Decree No. 6,938, 2009).

In 2024, two public calls were opened. The repatriation call aims to support research projects by awarding scholarships with additional amounts and resources superior to those previously offered to researchers working in Brazil. The selection process for this call involves a rigorous evaluation of the research proposal, the researcher's qualifications, and the potential impact of the project. In addition to the scholarship amount, the following are also offered: assistance with the researcher's relocation and installation in Brazil, resources for contracting health insurance for the researcher and their family, assistance with Social Security contributions, and the settlement of debts with the Brazilian government (if any) arising from the researcher's failure to return to Brazil after completing their training abroad. This call targets Brazilian researchers with master's or doctoral degrees residing abroad, as well as Brazilian researchers who completed their doctoral or postdoctoral studies abroad from 2019 onwards, even if they are already residing in Brazil. The call for networks, on the other hand, will fund travel and per diem expenses, third-party services, import expenses, equipment, and bibliographic material. The objectives of this call are as follows: to support projects in partnership between public or private higher education institutions or science and technology institutes (in Brazil) and Brazilian researchers working abroad in educational, research, and technological development institutions; b) to encourage knowledge exchanges between researchers and research groups in Brazil and Brazilian researchers based abroad (CNPq, 2024a; CNPq, 2024b; CNPq, 2025).

More than 2,500 researchers expressed interest in the opportunities created by the two calls for proposals under the Knowledge Brazil Program. CNPq/MCTI/FNDCT call No. 21/2024 (focused on repatriation and settlement) approved 599 projects from researchers working abroad, with an

estimated investment of R$604 million. The selected researchers will work in Brazil at universities, research institutes (566 projects), and companies (33 projects), developing their projects for up to five years. CNPq/MCTI/FNDCT call No. 22/2024 (focused on network projects) approved 640 projects (to be carried out over two years), totaling R$228.5 million in investments (Gimenez & Carneiro, 2025; CNPq, 2025).

Finally, the Funding Authority for Studies and Projects (FINEP) is also participating in the Knowledge Brazil Program, with a call to support companies seeking to hire Brazilian researchers working abroad. The funds, also from the FNDCT, are allocated to companies hiring these professionals through the CLT (Consolidation of Labor Laws). As of June 2025, of the three companies that submitted proposals, only two were approved, with funding totaling R$40,123,922.20 (8% of the estimated budget) (Finep, 2025c).

It is worth noting that the Knowledge Brazil Program focuses more on repatriating and retaining researchers than on partnerships, as two of the three calls had this objective. However, experts have raised concerns about the long-term sustainability of this initiative. They state that by focusing on bringing scientists back to Brazil, the program may not fully address the internal structural problems that drove them to leave the country, such as the lack of opportunities and unstable research funding (Gimenez & Carneiro, 2025).

5. Lessons and learnings (best practices)

As discussed, Brazil's approach over the years has been overwhelmingly oriented toward repatriation —bringing researchers home. However, members of the diaspora and subject-matter experts argue that engagement and collaboration, regardless of physical location, should take precedence. This singular focus on return represents a strategic misstep, overlooking the intrinsic value of talent circulation.

At the same time, "winds of change" are evident. The Novation Policy, jointly implemented by CNPq and CAPES in 2023, marks a significant advance, establishing clear and transparent rules for former scholarship holders seeking to remain abroad. These improvements enhance legal certainty and broaden access compared with earlier, more opaque regulations.

The Knowledge Brazil Program, launched in 2023, demonstrates the impact that well-structured and well-funded initiatives can have. Its high level of interest, the large number of approved projects, and the volume of investment underscore the necessity of robust programs to stimulate partnerships and international collaboration, thereby making the domestic research environment more attractive.

However, while progress has been noted, it is essential to recall, as discussed in Section 4, that the Knowledge Brazil Program's calls for proposals have prioritized talent repatriation over network creation. Furthermore, the mandatory return of former Brazilian fellows from abroad has always been (and still is) the rule. Those who violate this rule will be subject to administrative and judicial sanctions. Although this rule has been relatively relaxed with the improvement of the Novation Policy in 2023, which offers the possibility of remaining abroad, the rejection rates for novation proposals are still high, with approximately 92% rejections in 2016, 78% in 2018, and 62% in 2024. However, it is noted that the rejection rate has been decreasing considerably

over the years, especially since the establishment of the Novation Policy. The reduction in the rejection rate may be a direct consequence of the greater transparency and clarity of the rules and proposal submission processes. Therefore, when analyzing Brazil's policies and historical stance on international mobility, we inevitably note that return to the country has always been the rule rather than the exception. Presumably, this is due to a difficulty in understanding that, even from a distance, the diaspora can contribute to increasing human capital in their country of origin.

FAPESP's experience in the state of São Paulo also serves as a model of best practice. By creating tailored programs for Brazilian researchers abroad —such as the São Paulo Excellence Chair and joint calls with the Butantan Institute,— FAPESP demonstrates a strategic appreciation of the scientific diaspora as an active resource, prioritizing knowledge exchange over definitive return.

Moreover, Brazil's Innovation Diplomacy Program, coordinated by the Ministry of Foreign Affairs, deploys consulates and embassies to engage the diaspora through meetings, mapping exercises, and workshops. These activities are essential for maintaining effective communication channels and promoting bilateral knowledge exchange.

Brazil's experience shows that programs may face challenges of sustainability in a multilevel governance context. Coordinating across ministries and agencies —such as MEC (via CAPES), MCTI (via CNPq and FINEP), and Itamaraty (via PDI) which— is not straightforward, as it requires continuous dialogue, alignment of distinct mandates, and long-term commitment. In practice, this complexity can make it difficult to avoid fragmented agendas and overlapping initiatives, underscoring the importance of sustained inter-ministerial cooperation.

Another lesson is the critical importance of reliable data. The absence of systematic, disaggregated information on the Brazilian scientific diaspora, —its size, geographic distribution, and disciplinary profile— continues to hinder the design, monitoring, and evaluation of engagement policies. Without robust information systems, policies remain reactive and episodic, and opportunities for collaboration are missed. Creating a national observatory or database of the diaspora could address this gap, enhance transparency, and support evidence-based policymaking.

Finally, Brazil's trajectory demonstrates the influence of cultural and institutional narratives. The persistent conflation of diaspora with brain drain has shaped policy orientations, privileging repatriation over circulation. Shifting toward a narrative that values transnational collaboration, even without physical return, is itself a best practice to be learned from both international experiences and local experiments, such as FAPESP's SPEC program. Recognizing diaspora members as long-term partners rather than temporary absentees is a necessary cultural shift for sustainable engagement.

6. Policy Implications

One of the most significant challenges to engaging the scientific diaspora lies in building mutual trust. Engagement becomes viable only when diaspora members feel that their contributions are genuinely valued and that collaboration is based on partnership rather than obligation. This trust has been eroded by perceptions of domestic instability; —both political and institutional, as well as financial— which discourage long-term commitments.

Frequent program interruptions and funding cuts create a high-risk environment for returning to or sustaining collaboration. The sense that a promising initiative might be abruptly canceled acts as a fundamental disincentive. Establishing a foundation of trust requires more than goodwill; it demands institutional continuity and predictable support.

Accordingly, Brazil must forge a new "social contract" with its scientific diaspora based on mutual trust, stable institutions, and reciprocal benefit. Success should be measured not by the number of repatriations but by the quality, frequency, and impact of scientific collaborations flowing between Brazil and the world. Achieving this vision calls for a genuine state policy that transcends electoral cycles. Without it, Brazil risks losing not only talent but also soft power, symbolic capital, and invaluable opportunities for global collaboration.

To operationalize this shift, the following measures are recommended:

- Develop programs of short- and medium-term "temporary engagement" (e.g., visiting professorships, sabbaticals) to facilitate collaboration without requiring permanent return.
- Formally recognize the diaspora as a strategic asset and allocate dedicated funding for their participation in conferences, think tanks, and diplomatic missions, reinforcing their role as informal "science ambassadors."
- Establish a robust monitoring and evaluation system for newly implemented diaspora policies, enabling real-time tracking of execution and systematic assessment of outcomes over short, medium, and long timeframes.
- Create a centralized "Brazilian Scientific Diaspora Hub" to compile data, opportunities, and contacts, maintaining an up-to-date database of Brazilian researchers abroad.
- Secure stable funding for diaspora initiatives to signal a serious long-term commitment by the state.

It is also crucial to address bureaucratic obstacles revealed by CNPq's difficulty in providing data on novation requests. Streamlining administrative processes and enhancing transparency will improve the government's capacity to monitor and evaluate policy effectiveness.

Finally, to ensure that policies capture diaspora contributions and address internal structural drivers of talent flight, the creation of an interministerial working group is essential. This body should include representatives from MCTI, MRE, CAPES, CNPq, as well as members of the diaspora itself, the national scientific community, and the private sector. An inclusive and participatory approach will yield policies that reflect Brazil's economic and social development needs, alongside the diaspora's potential to make meaningful contributions.

7. References

Balmer, B., Godwin, M., & Gregory, J. (2009). The Royal Society and the "brain drain": Natural scientists meet social science. Notes and Records: *The Royal Society Journal of the History of Science, 63*(4), 339–353. https://doi.org/10.1098/rsnr.2008.0053

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education.* Columbia University Press.

Bonilla, K. (2023). Editorial: Engaging Scientific Diasporas for Development: Policy and Practices. Frontiers in Research Metrics and Analytics.

Brasil. (2024). *Decreto Nº 12.003, de 23 de abril de 2024. Altera o Decreto nº 11.691, de 5 de setembro de 2023, que aprova a Estrutura Regimental e o Quadro Demonstrativo dos Cargos em Comissão e das Funções de Confiança do Ministério da Educação, e remaneja e transforma cargos em comissão e funções de confiança.* https://www.planalto.gov.br/ccivil_03/_ato2023-2026/2024/Decreto/D12003.htm#art3

Brasil. (2022). *Decreto Nº 11.229, de 7 de outubro de 2022. Aprova o Estatuto e o Quadro Demonstrativo dos Cargos em Comissão e das Funções de Confiança do Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq e remaneja e transforma cargos em comissão e funções de confiança.* https://www.gov.br/cnpq/pt-br/acesso-a-informacao/normas-1/estatuto-do-cnpq

Brinkerhoff, J. M. (2012). Creating an enabling environment for diasporas' participation in homeland development. *International Migration, 50*(1), 75-95. https://doi.org/10.1111/j.1468-2435.2009.00542.x

Brown, M. (2000). Using the Intellectual Diaspora to Reverse the Brain Drain. Some Useful Examples. In *UN. ECA Regional Conference on Brain Drain and Capacity Building in Africa* (pp. 1–14). Addis Ababa: UN. ECA. https://repository.uneca.org/handle/10855/21489

Brubaker, R. (2005). The 'diaspora' diaspora. *Ethnic and Racial Studies, 28*(1), 1–19. https://doi.org/10.1080/0141987042000289997

Brum, A. G. (2024). A história das políticas do Brasil para sua diáspora científica e tecnológica. *Revista Educação E Políticas Em Debate, 13*(2), 1-20. https://doi.org/10.14393/REPOD-v13n2a2024-70518

CAPES. (2025). *Política de novação para bolsistas e ex-bolsistas no exterior edital nº 15/2024 - resultado final.* https://www.gov.br/capes/pt-br/acesso-a-informacao/acoes-e-programas/bolsas/bolsas-e-auxilios-internacionais/encontre-aqui/paises/multinacional/politica-de-novacao-para-bolsistas-e-ex-bolsistas-no-exterior

CAPES. (2024). *História e missão.* https://www.gov.br/capes/pt-br/acesso-a-informacao/institucional/historia-e-missao

CAPES. (2023). *Portaria nº 287, de 19 de Dezembro de 2023. Dispõe sobre a Política de Novação para bolsistas e ex-bolsistas no exterior beneficiários dos programas geridos pela CAPES.* https://cad.capes.gov.br/ato-administrativo-detalhar?idAtoAdmElastic=13822

CAPES. (2022). *Brasil - Dados relacionados à Dotação e Execução Orçamentária 2013 a 2020.* https://metadados.capes.gov.br/index.php/catalog/242

CAPES. (2018). *Portaria nº 291, de 28 de Dezembro de 2018. Dispõe sobre o instituto da Novação no âmbito dos programas geridos pela Diretoria de Relações Internacionais da Capes.* https://cad.capes.gov.br/ato-administrativo-detalhar?idAtoAdmElastic=47

CAPES. (2016). *Portaria nº 176, de 17 de Outubro de 2016. Dispõe sobre a instituição do instituto da Novação no âmbito dos programas geridos pela Diretoria de Relações Internacionais da CAPES.* https://cad.capes.gov.br/ato-administrativo-detalhar?idAtoAdmElastic=297

Carneiro, A. M.; Gimenez, A. M. N.; Balbachevsky, E.; Azevedo, L. F.; Ferreira, V. K. (2024). Novo programa do CNPq pode atrair quem está no início de carreira fora do país, mas diáspora não é homogênea. *Agência Bori.* https://abori.com.br/artigos/conhecimento-brasil-e-o-que-a-diaspora-cientifica-brasileira-tem-a-nos-dizer/

Carneiro, A. M., Gimenez, A. M. N., Azevedo, L. F., Balbachevsky, E., Andrade, C. Y. (2022). Narrativas sobre fuga de cérebros no Brasil. *In Anais do I Congresso Internacional sobre Migração e Diáspora Acadêmica Brasileira.* Universidade do Minho, Guimarães, Portugal, 1, 1-19 Retrieved from https://doity.com.br/anais/cimdab2022/trabalho/238760

Carneiro, A. M., Gimenez, A. M. N., Granja, C. D., Balbachevsky, E., Consoni, F., & Andretta, V. F. (2020). Diáspora brasileira de ciência, tecnologia e inovação. *Idéias, 11*, e020010. https://doi.org/10.20396/ideias.v11i0.8658500

Ciumasu, I. M. (2010). Turning brain drain into brain networking. *Science and Public Policy, 37*(2), 135–146. https://doi.org/10.3152/030234210X489572

CNPq. (2025). *Conhecimento Brasil trará de volta cientistas que atuam em 34 países; veja o resultado final.* https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/conhecimento-brasil-trara-de-volta-ao-brasil-cientistas-que-atuam-em-34-paises-veja-o-resultado-final

CNPq. (2024a). Chamada CNPq/MCTI/FNDCT Nº 21/2024 - *Programa Conhecimento Brasil - Atração e Fixação de Talentos.* http://memoria2.cnpq.br/web/guest/chamadas-publicas?p_p_id=resultadosportlet_WAR_resultadoscnpqportlet_INSTANCE_0ZaM&filtro=resultados&detalha=chamadaDivulgada&idDivulgacao=12345

CNPq. (2024b). Chamada CNPq/MCTI/FNDCT Nº 22/2024 - *Programa Conhecimento Brasil - Apoio a Projetos em Rede com Pesquisadores Brasileiros no Exterior.* http://memoria2.cnpq.br/web/guest/chamadas-publicas?p_p_id=resultadosportlet_WAR_resultadoscnpqportlet_INSTANCE_0ZaM&filtro=abertas&detalha=chamadaDivulgada&idDivulgacao=12325

CNPq. (2023). *Portaria CNPq Nº 1.594, de 15 de dezembro de 2023. Dispõe sobre a nova Política de Novação para bolsistas e ex-bolsistas beneficiários dos programas geridos pelo CNPq.* http://memoria2.cnpq.br/web/guest/view/-/journal_content/56_INSTANCE_0oED/10157/21466034#Nota-5

CNPq. (2021, Dezember 31). *CNPq recebe R$ 100 milhões do FNDCT para Chamada Universal. Governo do Brasil.* https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/cnpq-recebe-r-100-milhoes-do-fndct-para-chamada-universal

Código Civil. (2002). *Lei nº 10.406, de 10 de Janeiro de 2002*. https://www.planalto.gov.br/ccivil_03/leis/2002/l10406compilada.htm

Cohen, R. (1997). *Diásporas Globais: Uma Introdução* (1st ed.). Routledge. https://doi.org/10.4324/9781003256526

Didou-Aupetit, S. (2009). ¿Pérdida de cerebros y ganancia de saberes?: la movilidad internacional de recursos humanos altamente calificados en América Latina y el Caribe. In E. Gérard (Ed.), *Fuga de cerebros, Movilidad académica, Redes científicas: Perspectivas latinoamericanas,* (pp. 25–62). México, D.F.: IESALC, INVESTAV, IRD. https://unesdoc.unesco.org/ark:/48223/pf0000186433

Dourado, C. (2023, Aprill 30). *Fuga de cérebros, a diáspora de cientistas brasileiros.* Agência Brasil. https://agenciabrasil.ebc.com.br/geral/noticia/2023-04/fuga-de-cerebros-diaspora-de-cientistas-brasileiros

Echeverría-King, L. F., Camacho Toro, E., Figueroa, H., Galvis, L., González, J., Suárez, J., Torres Atencio, E., & Widmaier Müller, C. N. (2022). Organized Scientific Diaspora and Its Contributions to Science Diplomacy in Emerging Economies: The Case of Latin America and the Caribbean. *Frontiers in Research Metrics and Analytics,* 7, Article 1029382. https://doi.org/10.3389/frma.2022.1029382

Fapesp. (2012).*Programa-piloto atrai cientistas do exterior para formar grupos de pesquisa em São Paulo*. https://agencia.fapesp.br/programa-piloto-atrai-cientistas-do-exterior-para-formar-grupos-de-pesquisa-em-sao-paulo/16527

Fapesp. (2025a). *Call for Proposals: International Thematic Grant (InTheGra)*. https://fapesp.br/17523/call-for-proposals-international-thematic-grant-inthegra

Fapesp. (2025b). *Call for Proposals: FAPESP and Instituto Butantan Joint Grant for International Researchers.* https://fapesp.br/17570/call-for-proposals-fapesp-and-instituto-butantan-joint-grant-for-international-researchers

Fapesp (2025c). *Call for Proposals: FAPESP Grant for International Researchers*. https://fapesp.br/17470/call-for-proposals-fapesp-grant-for-international-researchers

Finep. (2024). *Seleção Pública MCTI/FINEP/FNDCT Subvenção Econômica à Inovação em Fluxo Contínuo – Conhecimento Brasil.* http://www.finep.gov.br/chamadas-publicas/chamadapublica/745

Finep. (2025a). *Sobre a Finep.* http://www.finep.gov.br/a-finep-externo/sobre-a-finep

Finep. (2025b). Sobre as Fontes de Recursos. http://www.finep.gov.br/a-finep-externo/fontes-de-recurso/sobre-as-fontes-de-recurso

Finep. (2025c). *Seleção Pública MCTI/FINEP/FNDCT. Subvenção Econômica à Inovação em Fluxo Contínuo Conhecimento Brasil. (Divulgação dos resultados até 27/06/2025).* http://www.finep.gov.br/chamadas-publicas/chamadapublica/745

Gamlen, A. (2018). Diaspora Institutions and Diaspora Governance. *International Migration Review, 48*(1_suppl), 180-217. https://doi.org/10.1111/imre.12136

Gimenez, A. M. N.; Carneiro, A. M. (2025). Diasporas as actors in Brazil's development: in search

of “lost” human capital?. Revista Brasileira de Políticas Públicas e Internacionais - RPPI, (In press).

Gimenez, A. M. N.; Carneiro, A. M.; Balbachevsky, E.; Ferreira, G. G. C. (2025). Colaborações entre a diáspora científica brasileira e pesquisadores no Brasil no tema da COVID-19: engajamento, motivações e sustentação de vínculos. *Dados - Revista de Ciências Sociais, 69*(1): e20230144. https://doi.org/10.1590/dados.2025.69.1.409. (In press).

Instituto Brasileiro de Geografia e Estatística (IBGE). (2019). *Com questionário definido, conheça as perguntas que serão feitas no Censo 2020*. Agência IBGE Notícias. Disponível em: https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/24914-com-questionario-definido-conheca-as-perguntas-que-serao-feitas-no-censo-2020

Instituto Brasileiro de Geografia e Estatística (IBGE). (2011). *Censo Demográfico 2010. Características da população e dos domicílios: resultados do universo*. Rio de Janeiro: IBGE. https://biblioteca.ibge.gov.br/index.php/biblioteca-catalogo?view=detalhes&id=793

Kuznetsov, Y., & Freinkman, L. (2013). Diasporas as Partners for Development: Indirect (Pragmatic) vs. Direct (Administrative) Approaches to Diaspora Engagement. In: Y. Kuznetsov (Ed.). *How can talent abroad induce development at home: towards a pragmatic diaspora agenda*, pp. 291-314. Washington, DC: Migration Policy Institute.

MCTI. (2024). O Ministério. https://www.gov.br/mcti/pt-br/acesso-a-informacao/institucional/o-ministerio

Meyer, J. and Brown, M. (1999). *Scientific Diasporas: A New Approach to the Brain Drain. World Conference on Science,* Budapest, 26 June-1 July 1999. Recuperado de https://publications.iom.int/books/empoderando-la-diaspora-suramericana-como-actores-en-el-desarrollo-sostenible-un-diagnostico

MRE. (2024, July). *Comunidades brasileiras no exterior: Ano-base 2023*. Ministério das Relações Exteriores – Secretaria de Comunidades Brasileiras e Assuntos Consulares e Jurídicos. https://www.gov.br/mre/pt-br/assuntos/portal-consular/comunidades-brasileiras-no-exterior-estatisticas-2023

Organización Internacional para las Migraciones (OIM). (2022). *Empoderando a la diáspora sudamericana como agente del desarrollo sostenible: Un diagnóstico regional*. OIM, Ginebra. https://publications.iom.int/books/empoderando-la-diaspora-suramericana-como-actores-en-el-desarrollo-sostenible-un-diagnostico

Revadam, R. (2025, March 24). PLOA 2025: orçamento do MCTI cresce, mas CNPq perde R$ 76 milhões. *Jornal da Ciência*. https://portal.sbpcnet.org.br/noticias/ploa-2025-orcamento-do-mcti-cresce-mas-cnpq-perde-r-76-milhoes/

Safran, W. (1991). Diasporas in Modern Societies: Myths of Homeland and Return. *Diaspora: A Journal of Transnational Studies*, 1(1), 83–99. https://doi.org/10.1353/dsp.1991.0004

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review, 51*(1), 1–17. https://www.jstor.org/stable/1818907

Shin, W., & Caywood, K. Countering Brain Drain through Circulation and Linkage: Illustrations and Lessons from China and India. *International Migration Review*. https://doi.

org/10.1177_01979183251371676

Tölölyan, K. (1996). Rethinking Diaspora(s): Stateless Power in the Transnational Moment. *Diaspora: A Journal of Transnational Studies, 5*(1), 3–36. https://doi.org/10.3138/diaspora.5.1.3

Tung, R. L. (2008). Brain circulation, diaspora, and international competitiveness. *European Management Journal, 26*(5), 298–304. https://doi.org/10.1016/j.emj.2008.03.005