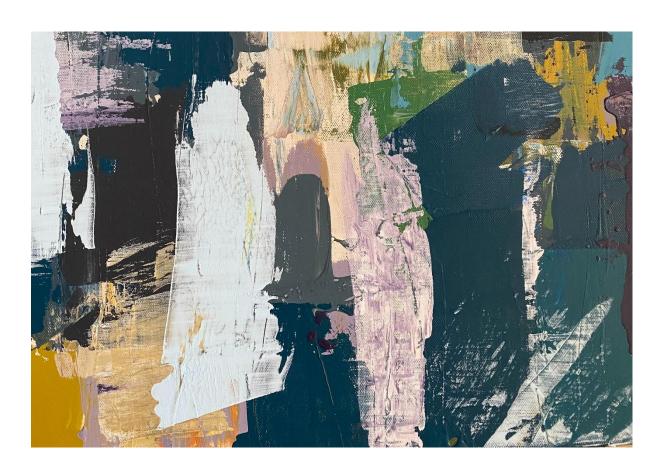


UNIVERSITÄT BERN

CDE
CENTRE FOR DEVELOPMENT
AND ENVIRONMENT



# IGS North-South Tracer Study 2022: Decolonizing a PhD Programme and Beyond

Laurenzia Karrer\*, Camilla Steinböck\*, Lilian Julia Trechsel, Tamara da Silva, Thomas Breu

\*Equal contribution

#### Publisher

Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP) Mittelstrasse 43, CH-3012 Bern, Switzerland www.cde.unibe.ch publications.cde@unibe.ch

© 2023, Laurenzia Karrer, Camilla Steinböck, Lilian Julia Trechsel, Tamara da Silva, Thomas Breu

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License. See https://creative-commons.org/licenses/by-nc/4.0/ to view a copy of the license. For any commercial use of the content, it is mandatory to obtain permission from the authors of the corresponding content.

#### Citation

Karrer L, Steinböck C, Trechsel LJ, da Silva T, Breu T. 2023. IGS North-South Tracer Study 2022: Decolonizing a PhD Programme and Beyond. Bern, Schweiz: Centre for Development and Environment (CDE), Universität Bern, with Bern Open Publishing (BOP). <a href="https://doi.org/10.48350/182165">https://doi.org/10.48350/182165</a>

#### Contact

igsnorthsouth.cde@unibe.ch

#### Editing

Anu Lannen (CDE)

## Cover Image

Photo: © Vojtech Bruzek, Unsplash

#### Layout

Camilla Steinböck & Laurenzia Karrer (CDE)

#### **Online Access**

A PDF version of this publication is available at:

https://www.bne.unibe.ch/material/publications\_further\_reading/esd\_in\_higher\_education/

DOI: https://doi.org/10.48350/182165

## Contents

1	Introduction	5
2	Thematic focus and evaluation approach	6
	2.1 Global South – Global North	7
	2.2 Strategic Framework – 'Decolonizing' graduate careers	8
	2.2.1 De-mythologize	9
	2.2.2 De-silence	9
	2.2.3 De-colonize	. 10
	2.3 Study sample	. 10
3	Socio-geographic characteristics of alumni	. 11
	3.1 Country of origin	. 12
	3.2 Socio-economic background	. 12
4	Results and discussion	. 14
	4.1 De-mythologize: Global mobility of knowledge	. 14
	4.1.1 Geographic mobility	. 14
	4.1.2 Career development	. 18
	4.2 De-silence: Power structures and knowledge production	. 19
	4.2.1 Power structures	. 19
	4.2.2 Access to the global scientific community	. 22
	4.2.3 Digital shift in academia	. 23
5	De-colonize: Reflections on the IGS North-South	. 29
	5.1 Structure and courses of the IGS North-South and the needs of target audience	. 29
	5.2 Key considerations when reflecting on the IGS North-South with a de-colonizing	
	perspective	. 30
6	Conclusion and recommendations	. 31
7	Outlook	. 35
8	Literature	. 36
a	Annov	38

## Figures

Figure 1: Where alumni wished to live after finishing their PhD.	15
Figure 2: Reasons for choosing the country the alumni currently work in.	18
Figure 3: Positions held by alumni before and after the PhD, as well as current position.	19
Figure 4: Perception in the academic world based on gender.	20
Figure 5: Experience of article rejection.	23
Figure 6: Participation barriers when accessing online settings.	26
Figure 7: Distribution of online events attended by continent.	27
Tables	
Table 1: Geographic origin of NCCR and IGS North-South alumni at the time of the	
surveys in 2012, 2017 and 2022.	11
Table 2: Socio-economic background and highest academic degree of both parents.	13
Table 3: Geographic movement of the alumni.	17
Table 4: Negative effect on research and/or work due to Covid-19.	24
Table 5: Advantage of face-to-face versus online settings	28

## 1 Introduction

The International Graduate School North-South (IGS North-South) on sustainable development, global change, and innovation was founded within the Swiss National Centre of Competence in Research (NCCR) North-South programme<sup>1</sup>. Now in its 22<sup>nd</sup> year, the overarching aim of the doctoral programme is to aid the advancement of sustainable development by supporting PhD candidates in their acquisition of skills and knowledge in inter- and transdisciplinary collaboration and research settings. In addition, the doctoral programme seeks to establish international research networks geared towards investigating opportunities and impacts for facilitation of transformation in the direction of sustainable development. The graduate school is based on an "inter-university agreement between the Swiss universities of Basel, Bern, Lausanne, and Zurich, and selected cooperation agreements with leading universities from countries in the global South and East" (IGS Website, 2022). The IGS North-South offers a wide range of inter- and transdisciplinary courses as well as an annual summer school in different parts of the world. Doctoral students can attend the training to obtain the IGS North-South Certificate of Specialization in Sustainable Development. Since the establishment of this inter-university PhD graduate school in 2001, over 347 students have completed or are completing the IGS North-South (or NCCR North-South) programme, including 264 Alumni and 83 active IGS North-South members, as of November 2022.

To track the effectiveness of the PhD programme, a first tracer study was conducted in 2012, followed by a tracer study in 2017, and finally one in 2022. At the time of the first tracer study in 2012, all alumni were part of the NCCR North-South programme. As the baseline tracer study sought to compare global mobility and graduate careers of alumni over time, follow-up studies were planned for intervals of five years, leading to the second survey in 2017. By this time, the alumni were either part of the NCCR North-South programme, the IGS North-South programme, or even if they began working on their PhD during the transition phase of the graduate school. Five years later, in 2022, the third tracer study was conducted on behalf of the present report.

All the tracer studies (2012-2017-2022) have examined the mobility of programme participants, including geographic movement since beginning a PhD and professional activities. Further, all the tracer studies have investigated the capacity development and career building of PhD graduates. Nevertheless, each tracer study has emphasized a different thematic focus. While the first study emphasized the programme's aim to strengthen research capacity, the second tracer study concentrated on international student mobility, spaces for transformative learning, and inequalities in higher education. Now in its third iteration, the present tracer study places its thematic focus on decolonizing graduate careers, in response to corresponding calls for critical self-reflection in academia. As the report of the UNESCO (2022: 54) states, the dedicated work of decolonizing and anti-racism movements "must continue if we are to bring different ways of knowing fully into our higher education system". This is, as the UNESCO (2022) posited, a precondition for achievement of the 2030 Agenda. Besides the continuation of the tracer studies' general orientation, this study aims to initiate a self-reflection process within the IGS North-South in particular and to contribute to ongoing debates on decolonizing research cooperation in general. The resulting recommendations are intended for institutions that offer funding or positions to PhD students,

-

<sup>&</sup>lt;sup>1</sup> The National Centre of Competence in Research (NCCR) North-South was a 12-year North-South research partnership programme. The aim of the program is like the IGS programme and is described in Heim EM, Engelage S, Zimmermann AB, Herweg K, Michel C, Breu T. 2012. *Tracking Alumni Career Paths: Third NCCR North-South Report on Effectiveness*. Switzerland: NCCR North-South Dialogue, Management Centre, Centre for Development and Environment (CDE), University of Bern.

as well as for supervisors and the scientific community in general. Of course, PhD students themselves are also welcomed to consult the recommendations as a source of empowerment or inspiration.

The UNESCO (2022) call to decolonize academia stresses decentring, diversification, and reflection in order to integrate more diverse ways of knowing into higher education curricula, practices, and governance. UNESCO (2022) urges higher education actors to rethink their structures. The present report seeks to do this on behalf of the IGS North-South by means of a decolonization-focused reflective process. To address the complexity of decolonization in transboundary research and education partnerships, the report is organized according to the three pillars of the strategic framework on decolonizing (Rutazibwa 2019), which also respond to UNESCO' recommendations, namely:

- 1. De-mythologize: Tracking the geographic movement of alumni and positions
- 2. De-silence: Tracing power structures, access to the global scientific community, and digital transformation in science
- 3. De-colonize: Comparing the goals of the IGS North-South and the needs of the target audience

## 2 Thematic focus and evaluation approach

The NCCR North-South/IGS North-South tracer study is conducted every five years to track PhD graduate career paths over time. A methodological basis was established in the first alumni tracking survey, created for the first tracer study in 2012 to explore the experience of PhD graduates from the NCCR North-South programme. The questions were created in an extensive process by the Management Centre, programme coordinators, an external consultant, and a focus group of Regional Coordinators from the NCCR North-South partnership regions. Further, to optimize the survey, a testing phase was carried out with five alumni, as described by Heim et al. (2012).

For the second tracer study in 2017, the same survey was used with several adjustments. The thematic focus was shifted to education for sustainable development, investigation of spaces for transformative learning, and exploration of inequalities and power asymmetries in higher education in the context of international student mobility. The survey was supplemented by qualitative interviews, which highlighted the importance of the IGS North-South summer school course (Trechsel et al. 2021).

While in 2012, one main result of the tracer study was that "brain drain" was prevented, the 2017 data revealed more of what might be called "brain circulation" of global South alumni, with only a few moving or staying in global North countries after completing their PhD studies. To better understand these movements and to deconstruct "brain drain"/"brain gain" narratives as a "Western perspective" (Rutazibwa 2019), the authors of the present report used these terms (brain drain/gain/circulation) as well as the decolonizing framework (decolonizing alumni careers/decolonizing student mobility) as starting points for an exploratory literature review launched in the summer of 2022. Finally, the decision was made to emphasize decolonizing graduate careers in the 2022 tracer study based on insights from the 2012 and 2017 tracer studies, an internal self-evaluation of the IGS North-South written for the Executive Board of the University of Bern in 2021, and ongoing calls for academia to decolonize its structures.

In addition, against the backdrop of the Covid-19 pandemic, which started at the end of 2019 and continued until the start of the current tracer study, a second and related emphasis was placed on the corresponding digital shift occurring in academia, including its impact on global participation in academia. This second emphasis was partly chosen based on perceived risks

of an increasing digital divide, giving rise to new global inequalities – not least of all in academia. To this end, a literature review was conducted on the topics of "Covid-19 and academia" and "participation and inclusion in digital spaces", keeping in mind that empirical data and scientific literature were only just beginning to emerge.

Based on the thematic emphasis on "decolonization", two new question sections were added to the existing questionnaire of 2012 and 2017. However, to keep comparability between the three studies as high as possible, most of the other questions were maintained as in the previous surveys.

After an internal editing via the language team at the Centre for Development and Environment (CDE), the survey was set up on *LimeSurvey*. The members of the Management Centre of the IGS North-South and one alumnus pre-tested the survey, which led to several minor adjustments. After a second round of testing, the questionnaire was finalized and sent to the alumni via e-mail in August 2022.

## 2.1 Global South - Global North

Based on the history and aims of the NCCR North-South/IGS North-South programme, its facilitators have found it important to be able to distinguish between the geographical backgrounds of alumni, not least of all because of the great divides between different countries in terms of research and development. Though currently under debate along with many other key terms (e.g. "developing countries", "low-income countries"), the terms "global South" and "global North" are still commonly used in the context of sustainable development dialogues at the global level (e.g. UNESCO 2015). Nevertheless, this linguistic dichotomy should be critically reflected on. Especially in a broader context of efforts towards decolonization – the focus of this tracer study – terminologies play a fundamental role.

There are several reasons for continued use of the classification global North and global South in the current tracer study. First, it is important to preserve comparability with the prior tracer studies of 2012 and 2017, requiring use of roughly the same categorizations. Second, it points to a real, existing divide, which can help to focus needed attention on global inequalities. Even if its geographical meaning is not completely accurate (e.g. Australia), the terminology indicates a shared history of (neo)colonialism, inequalities, and injustices experienced by particular clusters of countries in certain regions of the globe. Third, the concept reduces global complexity, illuminating commonalities rather than differences between nation-states (Abdenur 2021). Nevertheless, as indicated by Heim et al. (2012), each country in the global South and the global North has its own system in terms of education, culture, politics, society, and more. It is important to keep this heterogeneity in mind even though country-level comparisons are not made in the current report, as they are not the focus of the tracer study.

According to the World Bank, the term global North often refers to OECD countries and high-income economies (Blicharska et al. 2017). In order to apply a more specific – and arguably meaningful – categorization based on economic, political, and social characteristics, the United Nations Human Development Index (HDI) was used in the 2017 and 2022 tracer studies as the basis for classification of countries into global South or global North. Specifically, in all tracer studies of the IGS North-South, we use global South to refer to countries with an HDI < 0.800, whereas countries with an HDI  $\geq$  0.800 – "very high" – are categorized as global North.

The HDI is composed of the three components "a long healthy life", "being knowledgeable", and "have a decent standard of living". The first component is assessed by life expectancy at birth, the third component classically focuses on per capita gross national income. What

is of most interest for the tracer study is the second component – the education component – which takes as indicators expected years of schooling and actual mean years of schooling. This human development approach focuses on people's capabilities and opportunities rather than narrow national economic indicators (Human Development Report n.d.). Accordingly, the HDI shows what opportunities the people of a certain country have and thus seems an appropriate choice for the purposes of this study.

## 2.2 Strategic Framework – 'Decolonizing' graduate careers

The IGS North-South and its predecessor the NCCR North-South were founded in an international academic environment focused on supporting achievement of sustainable development through research and knowledge (Heim et al. 2012). Inequality, often rooted in colonial histories, represents a major barrier to sustainable development. According to UNESCO (2022), achieving sustainable development necessitates applying several decolonizing approaches to bring about structural changes in knowledge production and academic systems. Further, Upreti et al. (2012: 67) state that having "the willingness and the capacity to deal with power issues" is crucial to overcome inequalities between the global North and the global South in development-oriented research.

In this way, decolonizing graduate careers must begin with the question of where power and especially coloniality can be found in existing academic structures, research-oriented institutions, and so on:

"Coloniality...refers to longstanding patterns of power that emerged as a result of colonialism<sup>2</sup>, but that define culture, labour, intersubjective relations, and knowledge production well beyond the strict limits of colonial administrations. Thus, coloniality survives colonialism. It is maintained alive in books, in the criteria for academic performance, in cultural patterns, in common sense, in the self-image of people, in aspirations of self, and so many other aspects of our modern experience. In a way, as modern subjects we breathe coloniality all the time and every day." (Maldonado Torres 2007: 243 in: Stanek 2019)

It is important to note that decolonizing is not just about adopting a new paradigm, but rather about an ongoing process of seeking possibilities to deconstruct, unlearn, and dismantle coloniality. As a result, the authors of this report do not seek to use one completed theory of decolonizing, but rather seek to follow a strategy based on different decolonial insights as suggested in Rutazibwa (2019). As Varadharajan (2019) puts it: "decolonization cannot be one" means or ends, but rather represents an ongoing process. In terms of education and knowledge production, decolonizing does not mean adopting one universal perspective. Instead, decolonizing is an invitation to open up and accept different forms of knowledge production (Stanek 2019). To this end, a wide range of action, reflection, and reconstruction is needed.

In her article "On Babies and Bathwater: Decolonizing International Development Studies", Olivia U. Rutazibwa (2019) offers a "framework of reflection" that can be used as a lens to deconstruct colonial structures and decolonize ongoing practices within higher education. This perspective represents a red thread that runs through the present study. The "decolonial strategic framework" strategy is threefold and involves the following steps: (1) "demythologize", (2) "de-silence", and (3) "de-colonize". The present report does not represent a completed project of decolonization, but rather is intended to stimulate a process of reflection and to introduce starting points that can aid the decolonization of academia.

<sup>&</sup>lt;sup>2</sup> Colonialism denotes a political and economic relation in which the sovereignty of a given nation or people rests on the power of another nation, such that the latter nation represents an empire (Stanek 2019).

## 2.2.1 De-mythologize

"A de-mythologized understanding of the world provides at the same time an invitation to revisit our sources of knowledge, as well as the rational for our knowledge production in the first place." (Rutazibwa 2019: 167)

The work of de-mythologizing challenges the ontologies that currently dominate people's understanding of the world. In contexts such as international development studies, particular narratives rooted in prevailing ontologies tend to shape students' understanding of origins, history, causal chains, relationships between human beings and nature, etc. Drawing on a range of studies, Rutazibwa (2019: 165) offers three points for reflection on the relationship between the global South and the global North and their corresponding narratives: "points of origin", "fragmentation", and "Eurocentrism". Discussing all three points is beyond the scope of our study. For the present report, it was opted to focus on the aspect of points of origin, which is, however, intertwined with the other key points of reflection. Here, Dipesh Chakrabarty calls for a "provincializing of Europe" (1992: 29 in do Mar Castro Varela and Dhawan 2009: 14) in which we cease to hold up Eurocentric narratives as universal narratives and instead strive to de- and re-centre them by acknowledging other points of origin. The practice of de-mythologizing is closely related to the second focus of the framework used for this report: de-silence.

#### 2.2.2 De-silence

"Who is invited around the expert table and who systemically not?" (Rutazibwa 2019: 168)

The call for de-silencing is part of a long tradition of postcolonial and feminist theorists such as Gayatri Spivak, Hill Collins, and Boaventura de Sousa Santos. The question of silenced voices and the goal of giving voice to those who are not heard is a key focus of decolonization. De-silencing, then, is not only about exposing the inequalities of being heard, but also about acknowledging what can (or cannot) be heard. Rutazibwa (2019) draws on the extensive literature on silencing to address two main questions: First, who might be silenced, and second, what kind of knowledge might be excluded as a result. According to Maria Do mar Castro Varela and Nikita Dawhan (2009), the decolonization of knowledge is a project to "decolonize hegemonic knowledge" that implicitly or explicitly continues to dominate academia. This dominant knowledge is viewed by critics and scholars as informed by a "modern" Eurocentric understanding, is "male, white and European" (Charles 2019), and often presents itself as a universal or unifying worldview (Collins 1999; Plater et al. 2019; Buggs et al. 2020). Critical observers further emphasize that the entanglement of colonialism and gender must be considered in the process of decolonizing and that patriarchal structures must be considered in their intersectionality (do Mar Castro Varela and Dhawan 2009). Further, Buggs et al. (2020: 1385) describe the dominant perspective as a "hegemonic white cishetereopatriarchal framework".3 According to Plater et al. (2019: 14) graduates with other intellectual or cultural capital may find that they "hit a white ceiling" if they do not assimilate to this dominant knowledge production.

The need for efforts to de-silence is also evident in the structures of North-South research cooperation, as work by Ravaka Andriamihaja (2022) shows. According to her findings, the global North is still in the position of the decision-maker in international research projects, thereby shaping decisions about topics, goals, people involved, concepts and methods. In addition, the division of data collection and analysis, as well as publication opportunities, often leads to underrepresentation of young scientists from the global South (Andriamihaja and Allheilig 2023). By disrupting these "white privileges" through greater diversity,

-

<sup>&</sup>lt;sup>3</sup> We will use the term "hegemonic white-patriarchal".

Wimpenny et al. (2021) sees an opportunity for creativity and reflection instead of distancing learners. Andriamihaja (in: Andriamihaja and Allheilig 2023) sees diversity as a "key to decolonize research" and perceives significant risks of missing out on other perspective if we fail to reform colonized structures.

#### 2.2.3 De-colonize

"Why are we producing knowledge?" (Rutazibwa 2019: 171)

The third strategic point of the decolonizing framework concerns normativity. The question is why knowledge is produced in the first place and what social project it serves (Rutazibwa 2019). While the other two parts of this strategic framework address de-colonizing within structures, this third part concentrates on the structure itself. As several authors note in the book "Decolonization and Feminisms in Global Teaching and Learning" (2019), decolonization is not a readymade solution, but rather a process of recognition, reflection, and understanding. Creating a basic awareness by taking collective responsibility is merely a first step towards decolonization (Jonge de et al. 2019).

## 2.3 Study sample

Work on the third tracer study began in April 2022. To obtain the survey sample of current alumni, we first identified all NCCR/IGS North-South members who planned to conclude their PhD before April 2022 but had not yet announced their graduation. To verify the current PhD status of these members, an email was sent to the 98 potential alumni asking about their PhD progress. If the email address was invalid, we sought to obtain the valid address by searching the IGS North-South LinkedIn group and by inquiring with supervisors or colleagues. Only students who confirmed completion of their PhD were added to the pre-existing alumni list; non-responders, drop-outs, or students who had not yet finished were eliminated from the sample. After authenticating these new alumni, the questionnaire was sent to a total of 264 former NCCR/IGS North-South students. Finally, 248 out of 264 alumni were sent the questionnaire via email. It remains uncertain whether all 248 actually received the survey, as valid email accounts still might not be regularly checked by their account holders. In addition, for 16 alumni no valid email address could be identified.

A total of 114 alumni clicked on the survey link, equalling an initial response rate of 45.9%. Of these 114 alumni, seven clicked through the questions without providing any answers. Another 21 alumni only answered a portion of the questions (up to question no. 37 out of 89). Surveys with over 41% unanswered questions were excluded from the data analysis. After these exclusions, the final official response rate was 34.7%, comprising 86 surveys included for analysis. Notably, surveys were not excluded based on a particular percentage of questions answered, but rather based on the minimum amount of information needed to conduct meaningful analysis; according to this criterion, the cut-off was set at completion of up to question number 37 of the survey (see attachment).

At the time of the first alumni study in 2012, there were 112 alumni who had finished their PhD within the NCCR North-South programme. A total of 111 of them could be located and were sent the first survey. With 83 completed surveys, the survey team achieved an official response rate of 74.8% (Heim et al. 2012). By comparison, in 2017, a total of 181 alumni had finished the PhD programme, with only two alumni who did not begin or complete their PhD within the original NCCR North-South programme. All told, 170 formal doctoral students could be reached with the 2017 survey; of these, 78 completed the survey (while 103 alumni responded, not all finished the survey), resulting in a final official response rate of 45.9% (Trechsel et al. 2021). These comparisons highlight decreasing response rates over the years.

When conducting the current survey, none of the questions were made mandatory. It was hoped that offering this freedom would support a higher response rate, as alumni would not give up on the entire questionnaire just because they did not feel like answering one specific question or another. However, this also resulted in many incomplete questionnaires and, in part, to differing survey samples for certain individual questions. Thus, when describing the results (section 4), the sample size for each question is indicated to make clear how many alumni responded.

## 3 Socio-geographic characteristics of alumni

As with prior surveys, the first analytical step for the third NCCR/IGS North-South survey was that of identifying the demographic characteristics of all 2022 alumni survey participants – and subsequently comparing them with the results of the 2012 and 2017 surveys. As shown in Table 1, the demographic characteristics of alumni survey participants were fairly similar for all three survey years. The main visible difference concerns the 2022 survey, in which the majority of participants consisted of female alumni from the global North. In the previous two surveys, the largest group was that of male alumni from the global South.

Of all the 264 NCCR/IGS North-South PhD alumni who completed the programme over the years, 19% were male alumni from the global North and 30% were male alumni from the global South. Further, 25% were female alumni from the global North and 16% were female alumni from the global South. The remaining 10% comprise 20 alumni whose country of origin was not indicated and five alumni whose sex was not indicated. Against this backdrop, male alumni appear accurately represented in the 2022 survey sample. By contrast, female alumni appear both overrepresented in the 2022 survey, in terms of women from countries of the global North, and underrepresented, in terms of women from countries of the global South. In the 2022 survey, female alumni from the global North formed the largest participant group; however, this does not accurately reflect the actual compositional breakdown of programme graduates. Meanwhile, female alumni from the global South form the smallest group in both the overall alumni of the PhD programme as well as in the 2022 survey sample; in the 2022 survey sample, they are especially underrepresented.

Table 1: Geographic origin of NCCR and IGS North-South alumni at the time of the surveys in 2012, 2017 and 2022. In 2022, three participants failed to indicate their country of origin; in addition, five alumni did not indicate their sex. The N for 2022 is thus 78 instead of 86.

	2012		20	17	2022 <sup>1</sup>	
Geographic Origin	Male	Female	Male	Female	Male	Female
North	18 (22%)	21 (25%)	11 (14%)	23 (30%)	18 (23%)	29 (37%)
South	33 (40%)	11 (13%)	35 (46%)	8 (10%)	23 (30%)	8 (10%)
Total	51 (62%)	32 (38%)	46 (60%)	31 (40%)	41 (53%)	37 (47%)

## 3.1 Country of origin

The 2022 survey data show the dominance Swiss nationals among programme graduates. This is not surprising since it is a Swiss graduate school with partner universities mainly in Switzerland. Indeed, the dominance of Swiss nationals was already visible in the 2012 and 2017 tracer studies. What differs in the 2022 survey, however, is the composition of alumni countries of origin with respect to the global South. In 2012 and 2017, more diversity of countries of origin represented. Alumni from countries like Kyrgyzstan, Cameroon, Eritrea, Thailand, Peru, and Mauritania (to name a few) are no longer represented in this latest study. On the other hand, Brazil and Senegal are mentioned for the first time as countries of origin in the 2022 survey results.

The obvious decline in the diversity of Southern countries of origin could be owed to the programme's transition from the NCCR North-South to the IGS North-South. Firstly, the original NCCR North-South programme emphasized research partnerships between Switzerland and the global South, and its explicit goal to was to contribute to the improvement of research capacity in the global South. To this end, the NCCR North-South sought to educate many sustainability experts in the global South, also hoping that they would remain in their country of origin during and after their PhD, or return following graduation (Heim et al. 2012). Secondly, the original NCCR North-South programme fully funded PhD students from the global South (and North). By contrast, in the successor IGS North-South programme, PhD students are funded through individual projects, which often are sponsored by global North countries who prioritize their own citizens.

## 3.2 Socio-economic background

According to their own statements in the 2022 survey, 60% of alumni from the global North and 53% from the global South come from upper-middle class or upper-class backgrounds. This has changed since the 2012 and 2017 tracer studies, in which the overall percentage of upper-middle class and upper-class alumni from the global South was 35% and 33%, respectively (see Table 2). Accordingly, the share of Southern alumni from lower-class or lower-middle-class backgrounds has also decreased since previous surveys. By contrast, the socio-economic background of alumni from the global North has remained more or less stable over all three survey periods. On the other hand, among alumni from the global South, the composition of their parents' highest academic degree achievement has remained about the same across all three surveys, whereas there has been a slight shift from post-secondary degree achievement (or higher) to no formal schooling or only primary or secondary schooling among parents of surveyed alumni from the global North.

Table 2: Socio-economic background and highest academic degree of both parents.

			20	17	2022 Socio-economic background		
Geographic origin			Socio-ed backg				
	Lower class or lower- middle class	Upper- middle class or upper class	Lower class or lower- middle class	Upper- middle class or upper class	Lower class or Lower- middle class	Upper- middle class or upper class	
North	13 (34%)	26 (66%)	15 (44%)	19 (56%)	19 (40%)	28 (60%)	
South	<b>South</b> 29 (65%) 15 (35%)		29 (67%) 14 (33%)		14 (47%) 16 (53%)		
	Both parents' highest academic degree		Both parents' highest academic degree		Both parents' highest academic degree		
	Attended no formal school or reached primary or secondary school	Achieved a post-secondary degree	Attended no formal school or reached primary or secondary school	Achieved a post-secondary degree	Attended no formal school or reached primary or secondary school	Achieved a post-secondary degree	
North	4 (10%)	35 (90%)	4 (12%)	30 (88%)	8 (17%)	39 (83%)	
South	23 (52%)	21 (48%)	20 (47%)	23 (53%)	14 (47%)	16 (53%)	

Again, a key reason for the change in the socio-economic background of surveyed alumni from the global South could be the recent decrease in funding for Southern PhD research and/or the lack of Southern-focused financial sponsorship in the IGS North-South (in comparison with the NCCR North-South). In the previous surveys, mainly (or only) alumni who graduated from the original NCCR North-South programme participated. In 2022, however, 25 alumni participated who pursued their PhD exclusively within the IGS North-South, which could no longer provide funding through the programme itself. This has obvious implications for who gets the opportunity to take part in the international graduate school and who does not. Nevertheless, this conclusion cannot be directly supported by the available datasets. Additional survey results and student testimonies concerning funding issues are discussed in section 4.2.

## 4 Results and discussion

## 4.1 De-mythologize: Global mobility of knowledge

Inspired by the framework of Rutazibwa (2019) who recommends efforts to "de-mythologize" as the first step towards decolonizing academia, the authors of the present report aim to challenge the narrative of brain gain/drain. Instead, we encourage a viewpoint of "brain circulation", moving away from Eurocentric perspectives that represent Europe as a more desirable place to stay and work following PhD completion. Here, brain circulation is seen as a theory of academic mobility holding that PhD students' acquired knowledge are shared with people they meet during their studies around the world and can contribute to mutual enrichment and connectivity between countries (Trechsel et al. 2021). By tracing the "points of origin" of alumni mobility, new narratives and understandings can be created (Rutazibwa 2019).

In this section, the question "Why do alumni move back or stay in their home countries?" is pursued.

## 4.1.1 Geographic mobility

First, it was evaluated where alumni completed their PhD and explored why they chose to complete it in their home country or not. In the 2022 survey, the majority of alumni stated having submitted their PhD in Switzerland (74%) or other Western countries such as the US or the UK. Only 19% of surveyed alumni submitted their PhD in a global South country. This indicates a clear shift towards the global North in comparison with the 2017 survey results, in which 31% of surveyed PhD students stated having submitted their PhD at a university in the global South. A total of 45 surveyed alumni from the North and 15 from the South completed their PhD in their country of origin.

Among alumni from the global North, the main reasons cited for studying in their country of origin were *personal reasons* (e.g. care duties, family) and funding opportunities (both 63%). By contrast, among alumni from the global South, financial barriers to study abroad (47%) was given as a main reason for studying at home. In addition, Northern alumni cited pre-existing partnerships, better opportunities for a PhD, and field of study as important reasons for studying at home, whereas Southern alumni cited no PhD opportunity abroad, better supervision, and pre-existing partnerships as key reasons. Further, reputation and better prospects for the future were cited as reasons for studying at home solely by Northern alumni. Finally, one Southern graduate stated that their funder required that they be "registered in their home country university".

By contrast, eight alumni from the global North and 15 alumni from the global South indicated submitting their PhD outside their country of origin. The main reasons cited for doing so among alumni from the global South were funding opportunities and higher quality of education than in country of origin, whereas alumni from the global North cited funding opportunities and field of study. Notably, several Southern alumni also highlighted better supervision, better prospects for the future, and better opportunities for a PhD as further reasons for studying abroad. These statements echo wider societal assumptions that completing a PhD at a Northern university provides a better education and better career opportunities. These survey responses also echo findings in the literature, for example those of Phan (2022) who listed reasons for not doing a PhD in one's home country including to gain language skills, for reputational benefits, and for cultural capital. Other reasons include

pre-existing (e.g. university) partnerships or funding opportunities, to receive a better supervision or because the domestic education is too low in quality. Finally, in the current survey, exclusively Southern alumni cited having too little time to focus on PhD in my country of origin, due to commitments such as teaching or project work.

To gain an idea of how alumni were planning their life and career, the question "Where did you wish to live after finishing your PhD?" was asked. Most alumni from both regions (44% from the global South; 55% from the global North) wanted to stay in their home country in the event that this was also where they completed their PhD (see Figure 1). Among Southern alumni, an equal percentage (22% each) wished to either stay in the country where they did their PhD or return to their country of origin. Only 9% of Southern alumni desired to migrate to a third country, whereas 18% of Northern alumni desired to do so. Only 10% (global South) or 2% (global North) respectively wanted to stay in the country where they did their PhD or return to their home country. Notably, only eight Northern alumni did their PhD outside their country of origin, so these numbers are not very representative, but nevertheless provide a certain impression.

Reasons given by Southern alumni for wanting to return to or stay in their country of origin included to *contribute to their country*, to *give something back*, and *to support and teach young scientists* in their country of origin. Other reasons given by Southern alumni for staying or returning home were feeling *socially and politically committed to the country and its development*, *family reasons*, having *no better opportunity elsewhere*, and having the "feeling [of being] more valuable in a developing country than in a developed [country]" (statement by one interviewee). In contrast to these rather intrinsic motivations, Northern alumni were more often driven by motivations such as *working on their professional reputation* and *better employment opportunities*.

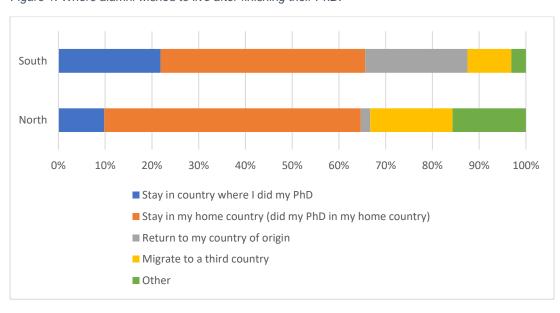


Figure 1: Where alumni wished to live after finishing their PhD.

These diverse motivations are also reflected in the literature. Dolgin (2019), for example, finds that many students from the global South who leave their home country for a PhD or a postdoc ultimately return home not because they wish to, but out of necessity. However, Dolgin (2019) also finds there are and increasing number of students and scientists who are motivated to return to their country of origin because they feel they can have a bigger impact there and a more fulfilling family and personal life. Indeed, Dolgin (2019) states that we may be witnessing a shift away from Western academic dominance in today's "global academic reality", with students choosing to pursue careers and settle elsewhere for various reasons. At the same time, still other researchers find that Southern students often opt to go back to their country of origin based on feelings of discrimination that make it difficult to imagine staying in the host country (Malet Calvo et al. 2021). In this way, post-colonial perceptions of discrimination and inequality still appear to influence graduates' choice of where to live (see also examples in section 4.2).

The main reasons given by Northern alumni for returning to or staying in their country of origin included *personal reasons* and *family responsibilities*, *feeling rooted in their home country* (mostly Switzerland), *wanting to be active in politics*, as well as the feeling that they *could achieve the biggest impact in their home country* after their experience of traveling a lot for their PhD and fieldwork. Notably, *not being able to travel elsewhere due to Covid-19* was also cited as a reason for staying home. By contrast, reasons given by Northern alumni for migrating to a third country or staying abroad after the PhD included *needing mobility for career advancement*, *gaining experience*, *interest in living abroad and in different cultures*, *few job opportunities in home country*, and *personal relationships*.

The fact that some NCCR North-South and IGS North-South alumni also wished to migrate to third countries supports the observation of Wu and Wilkes (2017) who point out that binary "stay-return" frameworks do not sufficiently capture student mobility, since many students have other options such as going to one or more other places. They also observe that common push-pull factors do not work the same way for all regional contexts since the factors relevant for one country might not be relevant for another (Wu and Wilkes, 2017). This is also visible in the data, with Northern and Southern alumni indicating different reasons for their migration plans. Indeed, even within individual Northern or Southern countries, differences appear that reinforce arguments against regional analysis (see section 2.1).

A total of 27 alumni did their PhD outside of their home country, comprising eight Northern and 15 Southern alumni. They were asked whether they felt any kind of pressure to return to their home country after graduation. The majority of alumni did not feel any such pressure. A few Southern alumni felt pressured by the political structure, others by the university institution or their supervisors, and others by family members. One graduate from the South stated that "family members did not [make pressure], but staying too long without family was not pleasant. Also, I felt far away from the grassroots, from the poor that I wanted to work with." Another participant stated that "while there [was] a possibility of taking the family with me [...] the loneliness I experience abroad [creates] sufficient pressure to want to go back home." These statements show the importance of family in migration decisions.

Here it is important to recall that the answers to the survey question "Where did you wish to live after finishing your PhD?" do not show where the alumni were at the time of the survey or why. However, Table 3, shows the geographic movement of alumni as indicated in the 2017 and 2022 surveys. In 2022, movement (or lack thereof) from the country of origin to the country of current institution – which is taken to be their current country of residence – indicates that the great majority of alumni (73% in the global North; 77% in the global South) were living and working in their country of origin. In addition, 13% of Northern and 20% of

the Southern alumni made a movement within or to the global North. One alumni each made a North-South and a South-South movement.

Table 3: Geographic movement of the alumni as indicated in the 2017 and 2022 surveys.

Geographic movement	Number and percent of students 2017	Number and percent of students 2022		
Student category North				
North to North	9 (26%)	13 (25%)		
North to South	2 (6%)	1 (2%)		
No movement	23 (68%)	37 (73%)		
Student category South				
South to South	3 (7%)	1 (3%)		
South to North	6 (14%)	6 (20%)		
No movement	34 (79%)	23 (77%)		

The high percentage of alumni who currently live in their country of origin supports the conclusion of previous tracer studies that the NCCR/IGS North-South has not facilitated "brain drain", but rather "brain circulation". The knowledge they obtain and share throughout their geographic movement in the doctoral programme and afterwards circulates and grows, spreading to others and potentially contributing to reshaping dominant narratives and paradigms.

Moving on, Figure 2 gives an overview of the work-related reasons for choosing to reside in a particular country after graduation. As in previous surveys, *private networks* (e.g. family) appear decisive, at least among alumni from the global North. Southern alumni tended to choose their country of employment based on *scientific interest* and *professional reputation*. Better job prospects and professional network were important to alumni from both the global South and the global North. Language seemed to be more of an issue for Northern alumni, while only or mostly Southern alumni mentioned visa barriers and financial reasons. Under "other", one graduate mentioned that their decision was determined by COVID-19.

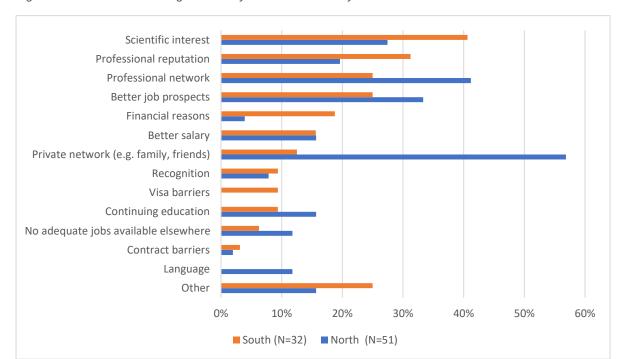


Figure 2: Reasons for choosing the country the alumni currently work in.

## 4.1.2 Career development

The survey showed that most alumni from the global South (82%) held a position as an employee, intern, or in middle management prior to starting their PhD. Another 13% indicated that they were working independent and 6% held a leading position. At the time of the survey, the share of global South alumni working as employees or in middle management stayed roughly the same as before, and none were working as an intern; however, the percentage in leading positions increased to 34%. As for alumni from the global North, 57% indicated holding a basic employee position and 31% worked as an intern prior to starting the PhD. Another 6% each indicated working independently or in middle management. No Northern alumni held a leading position prior to the PhD, though some obtained one after graduation. At the time of the survey, 47% of Northern alumni held an employee position — a comparatively smaller share vis-a-vis Southern alumni. Positions in the middle management increased to 24% among Northern alumni, and 25% were in a leading position at the time of the survey (see Figure 3).

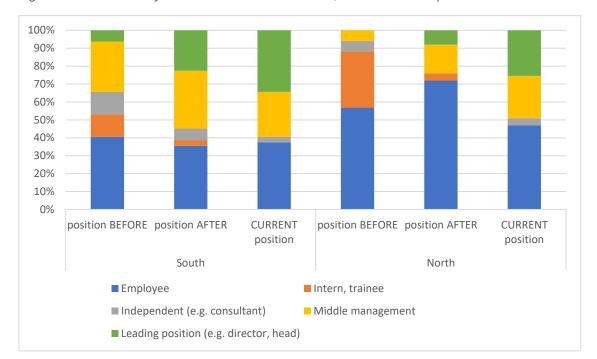


Figure 3: Positions held by alumni before and after the PhD, as well as current position.

The career impact of the PhD illustrated in Figure 3 further confirms the results of the 2012 and 2017 tracer studies. Achievement of a PhD once again appeared to trigger an immediate career boost that was more pronounced among Southern alumni, with Northern alumni taking a bit longer to obtain a leading position after graduation.

## 4.2 De-silence: Power structures and knowledge production

Inspired by the second step of de-silencing outlined in Rutazibwas (2019) strategy for decolonization, it is aimed to understand how alumni of different social positions and identities, who are producing different kinds of knowledge, consider themselves to be perceived and how hegemonic white-patriarchal frameworks might influence their position and movement within academia and geographically.

As a starting towards de-silencing, the alumni were asked in the survey participants how they felt perceived by the academic world based on their heritage, social position, and/or gender. According to Rojo (2021: 177), "many researchers in academia often feel judged, are treated unfairly and are even degraded based on their place of origin, social position, or ways of speaking, thinking, and communicating". Perceptions of researchers can impact their visibility and status, opening or shutting the door to participation and access to positions and/or institutions (Rojo, 2021). Baruch et al. (2007: 99) mention "perception of ethnic differences" as one of many factors influencing the career trajectory of young researchers.

## 4.2.1 Power structures

The survey results of the question "How do you feel you are/have been perceived by the academic world due to your heritage, social position, and/or gender?" did not point to significant differences between Northern and Southern alumni in terms of how they feel perceived in academia. One particular distinction between Northern and Southern alumni concerned their feeling of being treated *better* based on perceived differences: 15% of Northern alumni felt they were treated better than other colleagues based on their heritage, social position, and/or gender, whereas only 3% of Southern alumni reported feeling this way.

Similarly, slightly more Southern alumni reported feeling treated less respectfully than other colleagues.

By contrast, how alumni feel perceived in academia appears strongly determined by their gender, as can be seen in Figure 4. Compared to their male counterparts, women in both the global North and South were almost twice as likely to feel treated with less respect – namely 25% of all women respondents, or one in four women surveyed. A total of 41% male alumni reported feeling treated with respect in academia, 12% felt they were treated better than others, and 12% felt they were treated with less respect than other colleagues. Finally, 32% of male alumni said they did not have an opinion about this issue or felt it was not relevant. On the other hand, only 31% of female alumni felt treated respectfully and only 6% felt treated better than others. Finally, only 17% of female alumni stated that this is not an issue for them. In the open section of the survey, two women explicitly stated that they feel discriminated against based on their gender. Overall, our survey results point to perceptions of gender inequality among women in academia. These results are in line with other research highlighting feelings of perceived discrimination or even degradation among researchers based on aspects of their social identity (Rojo 2021).

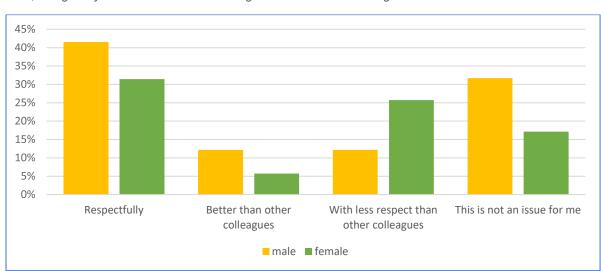


Figure 4: Perception in the academic world based on gender. Ten alumni did not complete the question. The N is 76, though only alumni who indicated their gender are shown in the figure.

To better understand how power structures might shape alumni position, access, and resources, an additional open question was added in the survey: "Have you ever experienced any kind of power structures within academia which you are willing to share or elaborate?" The responses of 51 alumni were then clustered into two different categories: global North and global South, and gender. Several answers were not related to specific power structures but related to structural discrimination in general. In both categories, information about general discrimination due to personal origin or gender, discrimination within fieldwork, language, publishing/submission, institutional structures, and duties as well as social interactions were mentioned. In the following, we discuss these in greater detail.

## Power structures related to origin

Several alumni reported to have experienced or observed discrimination due to their origin, background and/or skin colour. One graduate, who described himself as "white and male, and from the South", explained: "I was taken more 'serious' than colleagues from other backgrounds, colours, and origins. I noticed how better qualified and motivated colleagues had to push an extra mile (or many miles) than myself, particularly in the European academic context."

Alumni reported having privileges and positions of power during fieldwork by being white. One graduate from the global South reflected critically on the use of language within fieldwork: "How European researchers can do research and fieldwork in developing countries where they do not speak the 'colonial' language (French or Spanish) and use English, but I (as a researcher from a developing country) am expected to speak the 'colonial' language if I think about applying to a job in another developing country." English itself as a colonial and required language – one that is scarcely contested – was also mentioned and linked to barriers to academic positions and publishing.

One graduate highlighted how submissions from universities in certain Northern countries are preferred in journal review processes. Further, financial barriers to publishing were mentioned, which are especially difficult to overcome due to global inequality of purchasing power. One graduate from the global South viewed certain financial barriers as deriving from funders who only wanted to support particular types of knowledge production: "(...) I was aware that the academics who did not want to take cognizance of my research got a lot of funding from those who wanted to promote another paradigm, and the donors had a big voice and outreach too. It was enough to drown voices like mine."

Another structural power issue mentioned in the survey responses was the precarious situation of early career researchers from the global South. The intersection of a lower academic position and personal origin was described by one graduate as follows: "It dramatically affects students from the global South, as they need contracts and stable situations for visa renewal and cannot support themselves without funds".

## Power structures related to gender

As indicated earlier, the most frequently reported experiences involving power structures were related to gender. Several alumni claimed to "experience gendered power structures in exchange with colleagues or project partners". Female respondents reported situations in which they were treated as secretaries, were required to do large amounts of administrative tasks, and had less time to work on their research projects in comparison with male colleagues. One graduate stated: "Also, compared to my male counterparts, I had several experiences where I had to fight more to get credit for my work because my research work was more likely to be perceived as 'assistant work' rather than 'scientific collaborator work' compared to male scientific collaborators who are automatically seen as more senior irrespective of their level of experience or actual contribution. This is also the case for promotions." With respect to fieldwork as well, women reported having fewer opportunities than male colleagues.

Various female respondents reported difficulties being taken seriously and treated respectfully, claiming it often requires an extra amount of work for them. Similarly, female alumni stated that they must make comparatively greater resource- and time-consuming efforts to be considered viable for academic positions or promotions. They also reportedly experience such inequality with respect to decision-making boards that are dominated by men, in which women are less likely to be heard. Others added that the structures of academia claim to promote women for certain positions but fail to adapt their structures to make them compatible with caregiving responsibilities.

Finally, several structural experiences of discrimination and discrimination against those in lower academic positions were reported in the survey. A picture of strong hierarchies within decision-making, processes and funding, abuse of power, and competition emerged from these open survey responses.

## 4.2.2 Access to the global scientific community

In a second step, we looked at access and barriers to the global scientific community in terms of research and publication.

#### Barriers to research

To explore possible inequalities in global publication rates, we analysed the share of alumni who were still involved in academic research. Overall, 69% of alumni were still active in academic research at the time of the survey. In the global South, the distribution of full-time and part-time academic research employment was evenly distributed with a respective percentage of 44%. In the global North, by contrast, only 20% of Northern alumni worked full-time in research and 38% worked part-time. Further, a full 41% of Northern alumni were no longer involved in research at all, compared with just 11% of Southern alumni who had stopped working in research.

Nevertheless, most of these alumni reported spending only 20–40% of their actual working time in their research activities in the previous 12 months. Southern alumni, in particular, reported not investing a high percentage of their working time in actual research activities. By contrast, among Northern alumni, worktime investment in research was more diverse, with an even distribution between 40% and 100% of actual working time.

Several barriers to doing research and/or publishing were reported by Northern and Southern alumni, above all lack of time and funding. The most common barriers cited by Northern alumni were lack of time within work (62%) and lack of time outside work (40%). The most common barrier cited by Southern alumni was lack of funding (50%).

The lack of time for research *within* work could be partly explained by the heavy teaching loads reported by 21% of Northern alumni and 8% of Southern alumni. Notably, in contrast to the findings of Medie and Kang (2018), heavy teaching loads were more of a problem for Northern alumni than Southern alumni in our survey. Further, 27% of Southern alumni also cited lack of a network as a barrier. It seems that while Northern alumni have a lack of time, Southern alumni lack the financial resources to do more research. This is especially concerning as financial barriers are hindering Southern researchers from publishing as well. Indeed, Medie and Kang (2018) state that increasing research funding for global South researchers is one solution for fostering better representation.

#### Barriers to publication

According to our data, barriers not only occur in doing research but also in terms of publishing research results. The results of our survey appear to support such findings by relevant scholars. To learn more about possible power structures in publishing, alumni were asked if they think they have ever experienced publishing rejection because their research is/was outside of the hegemonic white-patriarchal framework. According to the literature (Medie and Kang 2018; Buggs et al. 2020; Rojo 2021), privileges – and hence discrimination – can occur regarding employment positions, opportunities for publication, knowledge production, and elsewhere due to white-patriarchal privileges.

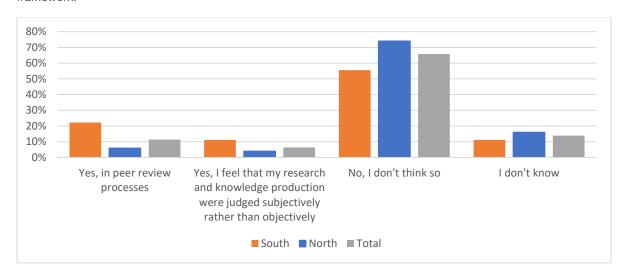


Figure 5: Experience of article rejection because research is/was outside of the hegemonic white-patriarchal framework.

As seen in Figure 5, a combined 66% majority of alumni reported never having experienced rejection of an article for publication because their research was outside of the hegemonic white-patriarchal framework. At the same time, Northern alumni reported being less affected (74%) than Southern alumni (56%). Notably, 22% of Southern alumni reported having experienced rejection in the peer review process for such reasons, while only 6% from the global North reported such an occurrence. Another 11% alumni from the global South and 4% from the global North felt that their research and knowledge production were judged subjectively rather than objectively.

According to Buggs et al. (2020), white knowledges that claim objectivity shape peer reviews and other publication processes. Further, being in this framework narrows understanding of its existence (Buggs et al. 2020). The survey results point to a clear difference between Northern and Southern alumni regarding such experiences. The under-representation of Southern publication might not only be due to lack of funding or time, but also due to perceptions of Southern research. Editorial board members are still mostly situated in the global North (Medie and Kang 2018). Western preferences often lead to undervaluing of Southern research, which may be one reason why Southern alumni feel subjectively judged more often and see their position outside the white patriarchal framework as a reason for rejection of their publications (Kassouf and Ronconi 2022).

#### 4.2.3 Digital shift in academia

Another new section of our survey aimed to explore how the recent digital shift in academic settings might impact the global South and global North differently in terms of their access to the global scientific community. It sought to understand whether and how digital settings create new forms of silencing or de-silencing. Further, it sought to explore whether old hierarchies around making scientific presentations or hosting events might be challenged or overcome through digital opportunities. Are there new experts? Or are digital settings reproducing old colonial hierarchies of expertise (Rutazibwa 2019)?

Covid-19 continues to exert an impact on international education, especially its turn towards digitalization (Malet Calvo et al. 2021). The initial lockdowns not only shed light on societal inequalities, but also forced academia to confront its own inequalities in terms of global research resources and opportunities. While online spaces might seem more easily accessible and are gaining traction in academia thanks to their smaller carbon footprint and lower cost, experts see risks of a sort of digital neo-colonialism (Taskeen 2019). This is

understood as a homogenization of knowledge based on rising international access to dominant forms of knowledge shaped by research communities in the global North, which may displace and marginalized other research perspectives and voices (ibid.).

To explore the possible impacts of this digital shift, alumni were asked whether their research and/or work have been negatively affected since the beginning of Covid-19. Respondents from the global North were fairly evenly split on this question (49% yes/51% no). In the global South, however, a clear majority of alumni felt their research and work were negatively impacted by the effects of the pandemic (65% yes/35% no), as seen in Table 4.

Table 4: Negative effect on research and/or work due to Covid-19. The question was not answered by nine alumni. Further, two alumni who answered the question did not indicate their origin. Thus, the N for this question is 77, with two respondents excluded (one North/one South).

Negative effect on research and/or work due to Covid-19							
Geographic origin Yes No							
North	24 (49%)	25 (51%)					
South	17 (65%)	9 (35%)					
Total	43 (56%)	34 (44%)					

Alumni responses (N=40) to the open question "In what way did Covid-19 negatively affect your research and/or work?" provided greater detail as to how and why participants' research and/or work was negatively affected by Covid-19. Several alumni stated that travel restrictions and reduced mobility harmed their work. This also harmed fieldwork activities, which became virtually impossible. A lack of communication was also mentioned. One respondent specified that online teams were built, but that limited online work challenged the team building. Another noted that interaction with peers, collaborators, and supervisors was diminished and became difficult. Several Southern alumni also mentioned difficulties with the continuity of different kinds of funding. In addition to problems at work, some alumni described psychological burdens due to work overload, care duties at home, and the requirements of constant online availability coupled with physical isolation.

Nevertheless, even though fieldwork was limited and online communication was more difficult than face-to-face communication, collaboration with colleagues in other countries remained possible for the majority of Southern and Northern alumni. Overall, 59% of the survey respondents stated that their collaboration with other countries was *not* affected negatively by Covid-19, while 41% stated it was negatively affected. Interestingly, according to the survey responses, the impacts on collaboration were roughly the same for Southern and Northern researchers.

As the International Association of Universities (IAU) Global Survey Report shows, the US and Europe were least affected by Covid-19-related interruptions to research activities (Marinoni et al. 2020). This finding is confirmed by the data in our tracer study. At the same time, it is promising to see that the collaboration of participants in our survey – including Southern researchers – did not break down due to Covid-19; by contrast, in other networks, many Southern research collaborations and partnerships were heavily compromised or even stopped, according to the literature (Marinoni et al. 2020). Unfortunately, our data do not provide details as to why the collaboration of our alumni continued to function during Covid-19 and what form of innovations occurred.

### Shifting participation through digital settings

To understand where and how participation in science has changed as a result of the digital transformation, alumni were asked about their participation in three academic settings: conferences, networks, and courses.

#### Conferences

Most Northern alumni cited no change in their participation in conferences. By contrast, Southern alumni cited either participating in more or participating in fewer conferences due to the digital shift, with fewer reported the most. In this way, Southern alumni reported more changes – and more negative changes – in comparison to Northern alumni.

#### Networks

Responses regarding participation in networks displayed a similar distribution. While 57% of Northern alumni did not report a change, the remaining Northern alumni were equally distributed between the categories "participated in fewer" and "participated in more". In the global South, the highest percentage again reported a shift towards less participation.

#### Courses

Finally, over half of Northern alumni did not note a change in their participation in courses due to the digital shift caused by COVID-19. The majority of global South alumni also reported "no change", though a large share also reported participating in fewer courses. Only a small number of Southern alumni participated more in courses.

In conclusion, about half of Northern alumni did not experience major changes as a result of the digital shift. By contrast, Southern alumni were more evenly distributed between the three categories "participated in fewer", "participated in more", and "no change". Overall, Southern alumni were affected somewhat more negatively by the digital shift.

In addition, we explored our results in light of the descriptions of online participation barriers found in the literature. Comparing Southern and Northern alumni, the participation barriers experienced by Southern alumni in our survey were greater and more distributed between various issues, as shown in Figure 6. While half of Northern alumni (52%) did not encounter barriers, only 23% of Southern alumni could say the same. Alumni from the global South recorded participation barriers particularly in terms of technical infrastructure, equipment, and Internet access. Over one third (35%) of alumni from the global South experienced unstable cellular data connections and/or unreliable Internet infrastructure. In contrast to results found in the literature (Achakulvisut et al. 2021; Sarabipour et al. 2021), Southern alumni in our survey did not encounter significant obstacles to online participation based on issues of language, culture, or disability.

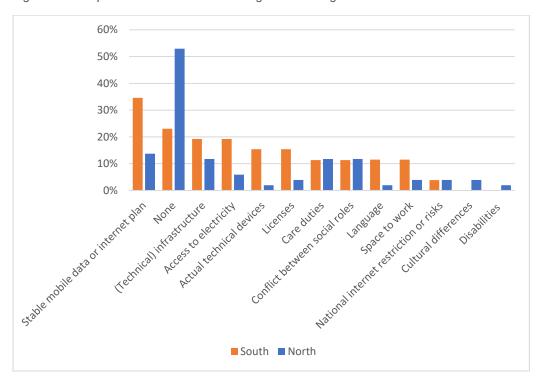


Figure 6: Participation barriers when accessing online settings.

Twice as many women as men reported participation difficulties due to care duties and tension between work and family responsibilities. Interestingly, however, this was only the case for Northern alumni, whereas the gender distribution was roughly equal in the South regarding this issue.

While global access to academia became easier for half of Southern alumni, participation of Southern alumni in academia decreased. About 55% of Northern alumni could not provide a clear answer, echoing the percentages of Northern alumni who did not recognize a change in their participation due to Covid-19, as seen above. Interestingly, overall, more alumni found it "easier to access" academia globally (42% "yes"; 11% "no") as a result of the digital shift.

As seen in Figure 7, half of the online events attended by NCCR/IGS North-South alumni were offered by European countries. European conferences were the most visited by both Northern and Southern alumni. Further, it is interesting to see that African online events were attended by many Northern alumni. Notably, many online events originating in North America were attended by IGS/NCCR North-South alumni, even though only five alumni were working in North America.

60
50
40
30
20
10
O
Africa Asia Australia Europe North America South America Collaboration of several continents

South North Blank

Figure 7: Distribution of online events attended by continent. The figure displays absolute numbers (not percentages) as the main goal was to show the frequency of online events attended per continent.

It is important to recall that the majority of surveyed alumni were from European and African countries. The significant offering of European online events may explain why Southern alumni in particular reported experiencing more "global access to academia" than previously. According to the literature, online spaces enable access to academic events, but simultaneously create new barriers (Karrer et al. 2022). Online scientific conferences saw a general increase in attendance during the pandemic. In particular, individuals who could not attend because they were unable to travel benefited from lower costs, the potential to combine commitments (e.g. work and personal), and were not hindered by physical barriers (Karrer et al. 2022). On the other hand, certain preconditions for participation in digital spaces – e.g. robust telecommunications infrastructure – were not always in place for all who wished to participate. The digital divide between South and North is clearly visible in our survey data, highlighting the importance of considering digital-access differences between academic participants and remaining aware of new inequities (Bolander and Fine 2021).

As online settings often put participants in a situation of mixing family and work duties at home, conflicts between these roles can occur. People must endeavour to balance different responsibilities while attending online events (Bal et al. 2020). While few alumni in the global North and South highlighted the challenge of balancing responsibilities as a barrier to participation, it is important to note the higher percentage of Northern women who reported dealing with this issue.

Another focus of decolonization is the transformation of epistemologies within academia, including academic events such as conferences and lectures. These events now occur with increasing frequency in digital settings, with new and different implications (Taskeen 2019). According to Taskeen (2019: 13): "Technology is changing what we know, as well as how we come to know it". This can raise new risks of epistemic injustice, for example if knowledge originating in the global North expands its presence and drowns out knowledge production in the global South as well as transfers between local knowledge systems in the global South (Taskeen 2019). Many questions arise. Does the shift to digital knowledge-sharing promote a more global and diverse programme of academic events? Or do countries in the global North simply further magnify their own visibility and recognition? How does access to global knowledge influence marginalized knowledge systems and the position of Westerndominated knowledge production? If the global North increases international access to its knowledge production, other forms of knowledge may be displaced. The many participants in online events originating in North America may indicate a shift towards increased participation in academic events in the global North, displacing smaller or less-recognized knowledge productions.

## Opportunities within digital settings

Table 5: Advantage of face-to-face versus online settings.

	North			South		
	face-to-	online	no sensible answer possible	face-to-	online	no sensible answer possible
Networking (N=76)	88%	8%	4%	58%	23%	19%
Approaching others (N=74)	85%	9%	6%	61%	31%	8%
Reaching out to/being contacted by others via email/social media (after meeting them) (N=73)	21%	62%	17%	17%	75%	8%
Approaching/exchangi ng with more senior researchers (N=73)	55%	21%	24%	50%	42%	8%
Presenting own research through presentation, poster, etc. (N=73)	49%	15%	36%	71%	17%	12%
Participating more in discussions (N=73)	49%	26%	25%	63%	21%	16%
Keeping existing networks active (N=72)	41%	42%	17%	42%	54%	4%

Face-to-face settings and online settings offer different opportunities for networking and participating in academia. To explore which were more beneficial, alumni were asked to indicate whether face-to-face or online interactions worked better regarding specific activities. As can be seen in Table 5, five out of seven activities worked better in face-to-face settings. "Networking and approaching others" in particular was indicated as easier in face-to-face settings by alumni from both the global North and the global South. Alumni also reported benefitting more from face-to-face settings when presenting their own research and participating in discussions. Finally, approaching people in higher positions, like senior researchers, was viewed as easier in a face-to-face setting. The only activities for which online settings appeared more beneficial were "reaching out to/being contacted by others via email/social media (after meeting them)" and — among for Southern alumni — "keeping existing networks active". In summary, establishing contact appears easier face-to-face, but online settings can be helpful in activating and maintaining networks.

In the future, 83% of all alumni stated they would prefer face-to-face academic events. In light of the barriers they encounter to online participation and the benefits of face-to-face settings, it is easy to understand why 92% of Southern alumni claimed to prefer face-to-face settings. By contrast, 77% of Northern alumni preferred face-to-face meetings.

Looking at the qualitative data, one reason that certain alumni preferred online settings was the reduction of travel, which is beneficial in several ways. It is more cost and time effective, and also lowers the carbon footprint of researchers who must attend conferences, courses, and meetings. Some alumni stated that online events offer them participation opportunities that they would not be able to take advantage of otherwise due to cost constraints. Finally, alumni with family duties reported that online opportunities enabled them to access events which they would otherwise miss out on.

On the other hand, face-to-face settings appear necessary for informal exchange, to engage with colleagues, and to build up one's professional reputation. Alumni stated that online events remain somewhat superficial, are less interactive, and offer fewer opportunities for networking.

The overall preferences for face-to-face settings found in this tracer study confirm the results of other studies which describe universities and similar institutions as more than places of knowledge transfer, but rather places of *exchange* (Burki 2020). On the other hand, our findings contrast with claims that the global South profits especially from online settings due to the elimination of costs and travel restrictions, etc. In addition, claims that online settings foster more opportunities to present one's research (Bottanelli et al. 2020) were not borne out in the data of our tracer study. It appears that face-to-face settings remain highly important to establish networks and present one's own research. Once these networks are established, online settings are beneficial to keep networks active and stay in contact with different researchers, without having to attend every conference.

Finally, our data did not reinforce claims that reduced power asymmetries in online settings will increase participation from the global South (Williams and Castro 2010). As Swissnex Network and Movetia (2021) both note, it can be challenging for younger colleagues to build networks from scratch online. Against this background, senior researchers with existing networks can assume a mediating role, actively striving to network with younger colleagues while remaining aware of the digital barriers facing newcomers.

## 5 De-colonize: Reflections on the IGS North-South

On behalf of the third step in Rutazibwas (2019) framework to "de-colonize", the following section takes a closer look at the expectations of alumni, reflects critically on the structures PhD-level graduate schools, and outlines some key considerations: What sorts of expectations and needs are expressed by IGS North-South alumni? Which of these can be realized by the IGS North-South? Is the programme helping to *cultivate* alumni knowledge? And how can it *serve* as a PhD graduate school to decolonize the academic or non-academic careers of alumni? In this way, the aims of the IGS North-South are compared with alumni needs and critically reflected upon.

Rutazibwa (2019) emphasizes the interconnectedness of global North studies with capitalist and neoliberal contexts of higher education, which must be acknowledged and critically reflected upon to move away from coloniality. As outlined in previous sections of this report, NCCR/IGS North-South alumni appear to experience different kinds of power asymmetries within prevailing global North-South structures. To examine how the IGS North-South may contribute to or challenge coloniality (see definition in section 2.2), the strategic aims of the IGS North-South are briefly explained and followed by an evaluation of alumni expectations and needs. Finally, the PhD programme is critically (self-)reflected upon in light of the findings of this study (section 5.1.2.).

# 5.1 Structure and courses of the IGS North-South and the needs of target audience

The foundation for the IGS North-South was laid during the NCCR North-South programme (2000–2012), which brought together universities in Switzerland and partner institutions in the global South. The programme sought to promote equitable, partnership-based research and to foster the development of individual and institutional capacities while advancing research to tackle societal problems by means of a combined disciplinary, interdisciplinary, and transdisciplinary approach (Trechsel et al. 2020). To this end, the PhD programme aimed

to establish international research networks by facilitating different international and regional learning events. These learning events were retained and complemented with a structured course programme by the IGS North-South, namely its "summer school". The current IGS North-South programme of studies is put together by its five participating member institutions at four Swiss universities.

To explore possible colonial features of the IGS North-South programme, it is important to understand what alumni expect from the IGS North-South and to analyse the current structures of the PhD programme in light of these expectations. To this end, the following open question was posed to participating alumni: "What do you expect from the alumni network?". A total of 16 alumni highlighted their desire for collaboration and cooperation opportunities and 12 alumni expressed interest in a lively network that enables them to meet, reconnect, and get to know other researchers while exchanging knowledge and expertise. Others expressed a desire for more frequent/regular (formal) meetings (e.g. online get togethers, learning activities, fieldtrips). Several alumni wanted to know more about the work of other alumni, testifying to the strength of the network. This desire was also linked to possible collaboration opportunities. Three alumni explicitly mentioned the need for more financial support or access to funding opportunities.

## 5.2 Key considerations when reflecting on the IGS North-South with a decolonizing perspective

With the transition from the original NCCR North-South programme to the IGS North-South, central-funding for PhD positions was eliminated. This has meant that subsequent Southern students can only participate in the IGS North-South as a full member if they belong to a separately funded research project based at one of the programme's Swiss partner universities and are enrolled at the respective university. This excludes many Southern PhD students from becoming full members in the IGS North-South and increases their dependency on the global North (namely Switzerland). The programme's original goal of progressively strengthening North-South collaboration and building up partnerships with universities in the global South - correspondingly incorporating their PhD students as full members – has yet to be realized. The main reason has been institutional limitations in Swiss higher education and Swiss funding schemes with predefined target groups. Based on the results of this tracer study and a request from the University of Bern's executive board, a new strategy for partnerships with Southern partner universities will be developed by the management centre and the board of the IGS North-South. Notably, increasing the role of global South universities in the programme would also greatly enrich the curriculum and its ontological foundations. At present, the regular course offerings are provided by the five Swiss partner institutions, thereby reproducing knowledge, methods, and perspectives dominated by Western thinking and science traditions.

The network and collaboration of PhD alumni is facilitated by a LinkedIn group that requires the active participation of alumni themselves. In terms of face-to-face settings, a key place where knowledge and expertise are shared is the annual IGS North-South summer school. Alumni are strongly encouraged to network, exchange, and make use of knowledge and expertise in the context of this annual event. The management centre of the IGS North-South strives to include "Southern" alumni as resource persons in the host country of the summer school; upon reflection, however, the management centre must admit that most of the seminars in the summer school are held by Northern resource persons while the local team is largely tasked with logistical matters.

Patterns such as this imply that, despite its stated aims, the IGS North-South at least partly reproduces global inequalities and power asymmetries in research and higher education.

Against this background, transformation and further development of the school's structures and practices towards a truly equitable and just North-South programme appears crucial to the future strategy of the IGS North-South. One first step that has already been taken is that of increasing its offerings of online courses which can be accessed from anywhere. A highly valuable next step would be to make a concerted effort to integrate global South universities into the programme. Doing so would likely introduce sweeping changes to the curricula and its rules/regulations. As described above, one key setting where the IGS North-South programme strives to counteract inequality patterns is its summer school – a multicultural, multidisciplinary learning space where beneficial face-to-face networking opportunities are possible. While the summer school mainly caters to active PhD students, it could be expanded to alumni of the programme as well, further extending its reach. Notably, Northern resource persons would do well to reduce their role in the summer school courses and make room for local resource persons, for example with respect to holding seminars (possibly delegating to alumni of the IGS North-South) – maybe also by reducing the number of experts from the global North who attend in person. During the original NCCR North-South programme, the summer school was organized fully by a local (global South) team and then by the (global North) management centre on an alternating basis - this approach could be readopted. This would mean opening up and accepting new and different forms of knowledge production, and ensuring space for them.

If the IGS North-South wants to entirely fulfil the mission evoked by its programme name – "North-South" – it must strive to critically reflect and transform existing features of coloniality in its programme structures and practises, working towards long-standing patterns and reaching out to cooperate with Southern universities as true partners on an equal footing. While prioritizing taking first steps in the IGS North-South itself, programme organizers should also strive to contribute to shaping future-oriented research policies for fair and equitable partnership-based research cooperation. As long as the global North continues to dominate funding schemes in research and development, it will also continue to set the corresponding agenda – thereby perpetuating inequality.

## 6 Conclusion and recommendations

This tracer study is the third in an ongoing series aimed at tracking the career development and geographic movement of PhD alumni, as well as monitoring demographic and socio-economic changes in terms of their composition. The current IGS North-South PhD programme grew out of the preceding NCCR North-South programme, which sought both to build scientific excellence in Switzerland and to contribute to improved life and livelihood conditions in countries of the global South by supporting their emerging scientific experts. One hope of the original programme was that PhD students from the global South would return to their country of origin after graduation, thereby assuming leading positions and initiating change in their societies (Heim et al. 2012). The focus of the current IGS North-South is more on capacity building and knowledge production, in addition to building a global network for collaboration. Still, due to the history and development of the programme(s), it was decided to focus the third tracer study on decolonizing graduate careers by structuring the report according to the strategic decolonizing framework of Rutazibwa (2019).

The socio-geographic background of alumni who participated in the 2022 survey largely corresponds with the results of the two previous surveys. While in previous studies, more Southern alumni had a lower class or lower-middle class background, in the 2022 survey this majority shifted to upper-middle class or upper class (just like the Northern alumni). One reason for this shift – and also for the slight decline in the diversity of countries of origin from the global South – could be the change in the funding scheme when the NCCR North-South concluded and the IGS North-South took over. Now that programme funding for PhD positions has ceased, the composition of who has the opportunity and resources to conduct a PhD has also changed. The first tracer study in this series indicated that the original graduate programme *did not* reproduce existing elite structures in the global South. This is thus a concerning development that needs to be monitored in the future.

The majority of surveyed alumni completed their PhD in Switzerland or other Western countries. Studying at a university in the global North remains popular among students from the global South due to funding opportunities and the perceived higher quality of education in comparison with many students' country of origin (among other reasons). Still, in the 2022 survey, the same share of alumni was found to remain in their home country for their studies – mainly due to personal reasons or financial barriers as well as the lack of PhD opportunities abroad. Northern alumni do not study at universities in the global South (though field studies are typically conducted in the global South), but rather remain in their home countries or move to another Western country. Regarding the choice of where to study, personal and family reasons prevail among Northern alumni as well, as do pre-existing partnerships and better opportunities for a PhD. These results point to prevailing hierarchies in the global academic world. Universities in the global South cannot keep up with universities in the global North in terms of attracting international students. This can lead to a vicious cycle in which funding continues to flow to the same universities, undermining the opportunities for development of other universities.

Looking at alumni mobility after graduation, our results indicate that most alumni (from the global South and global North) either prefer to stay in their country of origin – in the event that this was there they did their PhD – or to return home after graduation. Southern alumni cited a desire to contribute to their country and support young scientists, while Northern alumni were more motivated by professional reputation and better employment opportunities. The results confirm, once again, that obtaining a PhD triggers an immediate career boost, particularly among Southern alumni who frequently obtain a leading position relatively quickly after graduation. This was already a major finding in the two preceding tracer studies. In this way, it seems as though the graduate school is on the right track to achieve its goal of building capacity, in particular among alumni from the global South.

The first step of the strategic decolonizing framework by Rutazibwa is to de-mythologize. By focusing on the "points of origin" of our alumni as well as by challenging the prevailing Eurocentric narratives, we reflected on the relationship between the global South and global North. In our analysis of the survey results, we sought to emphasize the rising importance of non-Western countries in the academic world, evidenced by (PhD) students from all over the world who are eager to participate in the scientific community and to contribute to development both globally and especially in their country of origin. In order to foster a demythologized academic world in which scientists and universities from the global South and global North can partner up on an equal footing, we have come up with the following recommendations.

## **Recommendations: De-mythologize**

- Understand and disclose structural barriers in the academic world to free "brain circulation".
- Provide PhD students from the global South with more opportunities to be part of the scientific community even without funding from the global North.
- Value countries outside Europe and other dominant Western countries as places to live and produce knowledge.
- Use and clearly endorse funding for academic research and work available at universities in the global South.

Within the step of "de-silence", the results of our study indicate clear North/South and gender-based differences in terms of whether and how alumni confront power structures or face difficulties obtaining recognition for their knowledge production. Alumni reported experiencing various types of discrimination in access during fieldwork. Others reported barriers to publication procedures, which is consistent with the higher percentage of Southern alumni who have had experiences of publication rejection in peer review processes, or Southern alumni who feel that their research and knowledge production has been judged subjectively rather than objectively. Female alumni reported having to work harder than others to be heard, taken seriously, and treated equally. The survey results show that Northern male alumni were least likely to feel discriminated against based on their social identity. In short, alumni experience their position as embedded in power structures, hierarchies, and competition, which has an impact on their academic path and performance.

Taking a closer look at barriers to access to the global scientific community, North/South differences could be found here, too. Among Northern alumni, lack of time was the most frequently cited barrier to conducting more research. Among Southern alumni, it was the lack of funding, which might be connected to the lack of network some reported. This also appears to hinder Southern researchers from publishing.

Another survey focus was on the digital shift in academia. The results show that Covid-19 affected global South alumni much more negatively. Fieldworks, communication, team building, psychological burdens, and continuity of funding were major problems for Southern alumni. Southern alumni also experienced a greater variety of issues in digital settings, whereas half of Northern alumni did not report encountering any barriers in this area. At the same time, digital settings can increase access to global academia, especially for alumni who otherwise encounter travel, financial, or time commitment barriers. In this regard, increased attendance of online events was reported. Many North American conferences were visited, though none of the alumni were from North America. This trend should be critically reflected on in terms of how the globalization of Western academic events may be influencing the visibility and recognition of leading knowledge production and how other knowledge may be marginalized by it.

These findings show that there are still disparities in alumni opportunities to realize successful knowledge production, whether in the production of knowledge itself or in obtaining recognition for its academic value. De-silencing the power structures that alumni experience and perceive within academia represents a first step in promoting and creating new pathways for decolonized alumni careers. In parallel, various barriers must be reduced to enable more equal access to the global academic community. The question raised by Rutazibwa (2019), "Who is invited to the expert table and who is systematically not?" can be partly answered by looking at alumni perceptions, barriers, and the geographical location of

such expert tables in the broader sense of knowledge production. This also means reducing tasks, perceptions, or interactions that cause additional effort or even delegitimize the work and therefor positions of global South alumni in particular. In addition, we need to ask where the expert tables are geographically located and how they might be relocated so that geographic and human diversity are promoted.

As de-silencing academic knowledge production with its power structures and potential for diversity is a crucial step in decolonizing early career development, we recommend the following steps as entry points and recommendations.

## **Recommendations: De-silence**

- Recognize and reflect on how power structures shape the position and career of alumni, and consider this in the efforts of higher education institutions to foster early career researchers (e.g. in capacity development).
- Build up structures that reduce barriers (e.g. lack of funding and time) to the global scientific community.
- Acknowledge people's position regarding barriers and opportunities in global academia.
- Develop agile digital literacy for a reduction of the digital divide within global academia.

Viewing the structures of the IGS North-South through a de-colonizing lens, several weaknesses come to light. Despite the programme's original goal of strengthening North-South collaboration and building up partnerships with universities in the global South, the new programme structure has not provided a sufficient basis to incorporate PhD students from the global South as full members. Further, the aim of including and strengthening global South institutions within the programme has not yet been achieved. There are several possible reasons for this. Hierarchies in higher education that hinder institutional collaboration on an equal footing are a key problem, closely linked with funding schemes for predefined target groups, agenda-setting power, and associated responsibilities.

In connection with the third strategic point of the decolonizing framework, Rutizibwa asks "Why are we producing knowledge?" The IGS North-South is a PhD graduate school that seeks to offer learning spaces and networks to strengthen doctoral candidates in their acquisition of skills and knowledge in inter- and transdisciplinary collaboration and research settings. To provide such a learning space and fill it with different forms of knowledge, the IGS North-South has embarked on a transformation path. This report lays an important basis for the IGS North-South and other (doctoral) education programmes and provides the following recommendations on the path of de-colonizing.

#### Recommendations: De-colonize

- Rearrange the curricula of PhD graduate school programmes by giving the lead of courses to Southern universities.
- Build up alliances between universities from the global South and the global North as equal partners, not just as affiliated institutions.
- Lay a foundation for global inclusion through online courses accompanied by critical reflection on power dynamics.
- Provide spaces for learning and exchanging in PhD education by welcoming different forms of knowledge and collaboratively finding new ways to reflect on and reconstruct knowledge.
- Enable all stakeholders in the programme to become learners, to self-reflect, and to open up to transforming structures that were hitherto taken for granted.

## 7 Outlook

With each NCCR/IGS North-South tracer study new learnings are made. The fact that the PhD programme has been around for many years now means that the methodology of future tracer studies might need to be adapted. For many alumni, the timespan between graduation and time of the survey grows with each passing year. Some alumni finished their studies within the original NCCR North-South programme almost 20 years ago. Accordingly, it becomes more and more difficult to reach all alumni and to motivate them to fill out the survey. Further, as noted in section 2.3, the survey team cannot be sure whether all eligible alumni have truly received the survey if the invitation remains unopened in an email inbox that is no longer in use. As a result, for the next tracer study, we recommend sending out a pre-announcement of the survey to all alumni e-mail addresses with a request to confirm that the announcement has been received. This will enable the survey team to have a better idea of how many alumni can be reached with the survey.

Further, as noted in the introduction to this report, the survey response rate has decreased by a few percentage points with each tracer study. This should also be taken into consideration for future studies. Alumni motivation to complete the survey decreases as the time since graduation increases. In the 2022 survey, a number of alumni already had difficulties remembering details in order to answer some of the questions.

Since the tracer study is embedded in the ongoing development of the IGS North-South, it is difficult to predict what issue will be important to address in five years. It is important to note that decolonization remains a necessity and requires concrete steps and engagement within IGS North-South and academia in general. Not all results of the survey could be discussed in this report, such as structural discrimination and discrimination against lower academic positions. Such discrimination and their interconnectedness to other forms of discrimination might offer interesting topics or entry points for future tracer studies.

This report reveals many concrete points of leverage to rethink, restructure and change given structures within a PhD graduate school as part of a complex academic system. One could argue that the IGS North-South presents a double-edged sword. On the one hand, intentionally or not, it still supports colonial structures in academic research. On the other hand, it offers spaces and opportunities to reflect on such structures by contributing to the research on such themes (e.g. by conducting this tracer study with its explicit focus). By approaching and deconstructing a PhD education programme, this study thus opens up the possibility of contributing to this important process of decolonization of graduate careers and beyond.

## 8 Literature

- Abdenur AE. 2021. Climate and security: UN agenda-setting and the 'Global South'. *Third World Quarterly* 42(9):2074–2085.
- Achakulvisut T, Ruangrong T, Mineault P, Vogels TP, Peters MAK, Poirazi P, Rozell C, Wyble B, Goodman DFM, Kording KP. 2021. Towards democratizing and automating online conferences: Lessons from the neuromatch conferences. *Trends Cogn Sci* 25(4):265–268.
- Andriamihaja OR, Allheilig G. 2023. Diversity is the key to decolonizing research. *In: CDE Spotlight*. Bern, Switzerland: Centre for Development and Environment (CDE); [accessed 2023 May 03]. <a href="https://www.cde.unibe.ch/forschung/cde\_reihen/index\_ger.html">https://www.cde.unibe.ch/forschung/cde\_reihen/index\_ger.html</a>
- Andriamihaja OR. 2022. Decolonization of North-South research collaboration: Reflections on KFPE's 11 principles and 7 questions. [Unpublished internal report] Bern, Switzerland: Centre for Development and Environment (CDE).
- Bal IA, Arslan O, Budhrani K, Mao Z, Novak K, Muljana PS. 2020. The balance of roles: Graduate student perspectives during the COVID-19 pandemic. *TechTrends* 64(6):796–798.
- Baruch Y, Budhwar PS, Khatri N. 2007. Brain drain: Inclination to stay abroad after studies. *Journal of World Business* 42:99–112.
- Blicharska M, Smithers RJ, Kuchler M, Agrawal GK, Gutiérrez JM, Hassanali A, Huq S, Koller SH, Marjit S, Mshinda HM, Masjuki HH, Solomons NW, Staden JV, Mikusiński G. 2017. Steps to overcome the North-South divide in research relevant to climate change policy and practice. *Nature Climate Change* 7(1):21–27.
- Bolander B, Fine J. 2021. Digital conferencing in times of crisis. *International Journal of the Sociology of Language* 2021(267–268):55–68.
- Bottanelli F, Cadot B, Campelo F, Curran S, Davidson PM, Dey G, Raote I, Straube A, Swaffer MP. 2020. Science during lockdown from virtual seminars to sustainable online communities. *Journal of Cell Science* 133:1–5.
- Buggs SG, Sims JP, Kramer R. 2020. Rejecting white distraction: A critique of the white logic and white methods in academic publishing. *Ethnic and Racial Studies* 43(8):1384–1392.
- Burki TK. 2020. COVID-19: Consequences for higher education. *The Lancet Oncology* 21(6). Charles E. 2019. Decolonizing the curriculum. *Insights* 32(24):1–7.
- Collins PH. 1999. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment* (2nd Edition). London, United Kingdom: Routledge.
- de Jonge S, Icaza R, Rutazibwa OU, editors. 2019. *Decolonization and Feminisms in Global Teaching and Learning*. London, United Kingdom: Routledge.
- do Mar Castro Varela M, Dhawan N. 2009. Feministische Postkoloniale Theorie: Gender und (De-)Kolonisierungsprozesse. Europa provinzialisieren? Ja, bitte! Aber wie? FEMINA POLITICA Zeitschrift für feministische Politikwissenschaft 18(2):9–18.
- Dolgin E. 2019. The call of home. *Nature* 566:143–145.
- Heim EM, Engelage S, Zimmermann AB, Herweg K, Michel C, Breu T. 2012. *Tracking Alumni Career Paths: Third NCCR North-South Report on Effectiveness.* NCCR North-South Dialogue 42. Bern, Switzerland: NCCR North-South.
- Human Development Report. 2022. *Human Development Index (HDI)*. New York, United States: United Nations Development Programme (UNDP); [accessed 2023 Apr 27]. https://hdr.undp.org/data-center/human-development-index#/indicies/HDI
- Karrer L, Zabel A, Hammer T, Herweg K, Hirschbuehl T, Illien P, Lemann T, Lewis A, Lundsgaard-Hansen L, Mathez-Stiefel S-L, Ming E, Moser S, Providoli I, Rueff H, Solar Alvarez J, Trechsel L, Zeleke G, Zimmermann A. 2022. *Good Practice Guidelines: Digital Tools for Transdisciplinary and Transformative Research and Learning.* Bern, Switzerland: Centre for Development and Environment (CDE), University of Bern, with Bern Open Publishing (BOP).
- Kassouf AL, Ronconi L. 2022. Obstacles that Southern Researchers Face in Publishing in Economics Journals, and Why the Research Community Should Care. Sao Paulo, Brazil: Partnership for Economic Policy.
- Malet Calvo D, Cairns D, França T, de Azevedo LF. 2021. 'There was no freedom to leave': Global South international students in Portugal during the COVID-19 Pandemic. *Policy Futures in Education* 0(0):1–20.
- Marinoni G, van't Land H, Jensen T. 2020. *The Impact of Covid-19 on Higher Education around the World. IAU Global Survey Report.* Paris, France: International Association of Universities (IAU).
- Medie PA, Kang A. 2018. Global South scholars are missing from European and US journals. What can be done about it. *Faculty Publications: Political Science* 100:1–4.

- Phan ANQ. 2022. Why overseas? Vietnamese doctoral students' motivations for a doctoral study abroad. *Journal of Adult and Continuing Education* 1–20.
- Plater S, Mooney-Somers J, Barclay L, Boulton J. 2019. Hitting the white ceiling: Structural racism and Aboriginal and Torres Strait Islander university graduates. *Journal of Sociology* 56(3):1–17.
- Rojo LM. 2021. Hegemonies and inequalities in academia. *International Journal of the Sociology of Language* 2021(267-268):169–192.
- Rutazibwa OU. 2019. On babies and bathwater. Decolonizing International Development Studies. *In:* de Jonge S, Icaza R, Rutazibwa OU, editors. *Decolonization and Feminisms in Global Teaching and Learning*. London, United Kingdom: Routledge, pp. 159–180.
- Sarabipour S, Khan A, Seah YFS, Mwakilili AD, Mumoki FN, Saez PJ, Schwessinger B, Debat HJ, Mestrovic T. 2021. Changing scientific meetings for the better. *Nature Human Behaviour* 5:296–300.
- Stanek MB. 2019. Decolonial education and geography: Beyond the 2017 Royal Geographical Society with the Institute of British Geographers annual conference. *Geography Compass* 13(12).
- Swissnex Network, Movetia. 2021. Rethinking International Exchange with Digital. Bringing Agility and Innovation to International Higher Education. Bern; Solothurn, Switzerland: Swissnex Network; Movetia.
- Taskeen A. 2019. Digital neocolonialism and massive open online courses (MOOCs): Colonial pasts and neoliberal futures. *Learning, Media and Technology* 44(3):1–30.
- Trechsel LJ, Steinböck C, Ayeri Ogalleh S, Zimmermann AB, Herweg K, Breu T, Lannen A. 2020. Unlocking Knowledge for Sustainability: Partnership-based Research and Education. Bern, Schweiz: Centre for Development and Environment (CDE).
- Trechsel LJ, Zimmermann AB, Steinböck C, Breu T, Herweg K, Thieme S. 2021. Safe spaces for disruptive learning in a North-South research partnership context: International mobility of doctoral students. *Sustainability* 13(4).
- UNESCO. 2015. *UNESCO Science Report: Towards 2030.* Paris, France: United Nations Educational, Scientific and Cultural Organization (UNESCO).
- UNESCO. 2022. Knowledge-Driven Actions: Transforming Higher Education for Global Sustainability. Paris, France: United Nations Educational, Scientific and Cultural Organization (UNESCO).
- Upreti BR, Zimmermann AB, Debele B, Cissé G. 2012. *Partnerships in Development-Oriented Research. Lessons Learnt and Challenges Ahead.* Kathmandu, Nepal: NCCR North-South, South Asia Coordination Office.
- Varadharajan A. 2019. 'Straight from the heart': A pedagogy for the vanquisehd of history. *In:* de Jonge S, Icaza R, Rutazibwa OU, editors. *Decolonization and Feminisms in Global Teaching and Learning* London: Routledge, pp. 181–198.
- Williams EA, Castro SL. 2010. The effects of teamwork on individual learning and perceptions of team performance. *Team Performance Management: An International Journal* 16(3/4):124–147.
- Wimpenny K, Beelen J, Hindrix K, King V, Sjoer E. 2021. Curriculum internationalization and the 'decolonizing academic'. *Higher Education Research & Development* 1–16.
- Wu C, Wilkes R. 2017. International students' post-graduation migration plans and the search for home. *Geoforum* 80:123–132.

### 9 Annex

# Survey NCCR/IGS North-South Alumni Tracer Study 2022

## Educational background

Eddedional Sackground	
1. What university degree did yo	ou complete to qualify for a PhD
Discipline:	Pulldown
D: : I: OH / I :C /	

Discipline.	1 dhaowh
Discipline: Other (please specify)	
University:	
Country:	Pulldown
Year degree awarded:	Pulldown
Table above is shown for 3 differen  2. When did you start your PhD	?
Month:	Year:
3. When did you complete your Month:	PhD? Year:
<ul><li>4. In what discipline did you do List of disciplines</li><li>5. At what university did you su</li></ul>	bmit your PhD?
Name of University:	
Country:	
6. Did you do your PhD in your o  ☐ Yes ☐ No	ountry of origin?
7. Why did you decide to do you	ır PhD in your country of origin?
Multiple responses possible	
☐ Personal reasons (e.g. care duties	s, family, etc.)
☐ Financial barriers to studying abro	pad
□ Reputation	
☐ Pre-existing partnerships	
□ Funding opportunities	
☐ Better supervision	
☐ Higher quality of education than	
☐ Career expectations (e.g. from fai	nily members)
□ Domestic labour market	
☐ Better opportunities for a PhD	
☐ Better prospects for the future	
□ No PhD opportunity abroad	
☐ Field of study	
□ Prefer not to say	
□ Other (please specify):	

8. Why did you decide to do you	ır PhD <u>outside</u> your c	ountry of origin?		
Multiple responses possible				
□ To gain language skills				
☐ To gain cultural capital (publication	ons, internationally or	iented habitus, lar	nguage and comm	unication skills)
□ Reputation				
□ Pre-existing partnerships				
□ Funding opportunities				
☐ Better supervision				
☐ Higher quality of education than i	in country of origin			
☐ Career expectations (e.g. from far	mily members)			
□ Domestic labour market				
☐ Better opportunities for a PhD				
☐ Better prospects for the future				
☐ No PhD opportunity in country of	origin			
☐ Field of study				
☐ Too little time to focus on PhD in r	my country of origin, o	due to commitmer	nts such as teachin	g or project work
□ Prefer not to say				
☐ Other (please specify):				
9. In which countries did you co	nduct your field work	ι?		
Country 1:	•			
Country 2:				
Country 3:				
Country 4:				
40 141 .				
10. What was your personal moti			<i>.</i>	
Please indicate on a scale of 1 to 4 t	ne relevance of the fo	ollowing items as a	source of motiva	tion:
1 = not relevant				
2 = somewhat relevant				
3 = quite relevant				
4 = highly relevant		_	_	_
	1	2	3	4
Scientific interest				
Professional reputation				
Better job prospects				
Better salary				
Other				
11 Has your completed DhD gone	rally dalivared what y	vou honod it woul	43	
11. Has your completed PhD gene	rany denvered what y	you noped it woul	ur	
Please indicate on a scale of 1 to 3 f	for the following criter	ria		
1 = not at all				
2 = more or less				
3 = fully				
	1	2	3	
Scientific interest				_
Professional reputation				<u> </u>
Better job prospects				<del></del>
Better salary	П	П	П	_

Other

-----

12. Do you think that your current salary is higher than it would be without a PhD?
□ yes
□ no
<ul><li>13. Do you think that your current professional status is higher than it would be without a PhD?</li><li>□ yes</li><li>□ no</li></ul>
Your career
14. How long after completing your MSc did you start with your PhD?
□ under 1 year
□ 1-3 years
□ 4-10 years
□ more than 10 years
15. What was your last position BEFORE you started your PhD (main source of livelihood)?
□ Leading position (e.g. Director, Head)
□ Middle management
□ Employee □ Intern, trainee
□ Independent (e.g. consultant)
independent (e.g. consultant)
16. Last position BEFORE PhD: Type of institution
□ University or research institute
□ International Organisation (e.g. WHO, UNICEF)
□ International development agency (e.g. SDC, GIZ)
□ Non-governmental organisation
□ National government (e.g. Ministry of Health)
□ Local government
□ Private sector
□ Other (please specify):
Name of Institution:
Country:
17. What was your first position AFTER completing your PhD (main source of livelihood)?
("First position" refers either to a new position you obtained directly after finishing your PhD, or a position you already held during your PhD and continued to hold after completing your PhD.)
□ Leading position (e.g. Director, Head)
□ Middle management
□ Employee
□ Intern, trainee
□ Independent (e.g. consultant)

18. First position AFTER PhD: Type of institution
□ University or research institute
□ International Organisation (e.g. WHO, UNICEF)
□ International development agency (e.g. SDC, GIZ)
□ Non-governmental organisation
□ National government (e.g. Ministry of Health)
□ Local government
□ Private sector
□ Other (please specify):
Name of Institution:
Country:
19. What is your CURRENT position (main source of livelihood)?
□ Leading position (e.g. Director, Head)
□ Middle management
□ Employee
□ Intern, trainee
□ Independent (e.g. consultant)
,
20. CURRENT position: Type of institution
□ University or research institute
□ International Organisation (e.g. WHO, UNICEF)
□ International development agency (e.g. SDC, GIZ)
□ Non-governmental organisation
□ National government (e.g. Ministry of Health)
□ Local government
□ Private sector
□ Other (please specify):
Name of Institution:
Country:
21. CURRENT position: Thematic field
□ International relations
□ Natural resources (water, forest, land)
□ Poverty eradication
□ Human rights
□ Health promotion
□ Gender
□ Ethnic minorities
□ Fair trade
□ Migration
□ Peace promotion
□ Other (please specify):

22. Where did you wish to live after finishing your PhD?
□ Stay in the country where I did my PhD
□ Stay in my home country (I did my PhD in my home country)
□ Return to my country of origin
□ Migrate to a third country
23. Why? Please elaborate briefly on why this was your wish
Long text answer
24. Did you feel any kind of pressure to return to your country of origin after finishing your PhD?
Multiple responses possible
□ Yes, by family members
□ Yes, by my supervisors
$\hfill \square$ Yes, by the university institution (e.g. university structures, contract, expectations that the PhD student
returns to their home country after finishing their PhD)
☐ Yes, by the political structures (e.g. migration policies)
□ No
□ Other (please specify):
25. How did you choose the country you currently work in?
Multiple responses possible
□ Scientific interest
□ Professional reputation
□ Better job prospects
□ Better salary
□ No adequate jobs available elsewhere
□ Private network (i.e. family, friends)
□ Professional network
□ Continuing education
□ Visa barriers
□ Contract barriers
□ Language
□ Recognition
□ Financial reasons
□ Other (please specify):
26. Have you experienced one or more phases of unemployment (lasting 3 or more months) since your
PhD?
□ yes
□ no
27. For what reasons?
Multiple responses possible
□ No adequate jobs available
□ Family duties
□ Continuing education
□ Private time-out (e.g. travelling)
□ Illness
□ Other

## Research activities and the effects of COVID-19

28. After receiving your   □ yes  □ no	PhD, were you successful in acquiring funding for academic research projects?
	volved in academic research?
☐ Yes, full-time	
☐ Yes, part-time	
□ No	
30. What is your curren	: position in research?
→ Multiple choise	
☐ Assistant / scientific coll	aborator
□ Post-doc researcher	
□ Lecturer	
$\hfill\Box$ "Privatdozent" (only for	Swiss Alumni)
☐ Assistant /associate pro	fessor
☐ Full professor	
	de academia (e.g. in an NGO, ministry, etc.)
□ Other (please specify): _	<del></del>
31. What percentage of	your working time did you invest in research during the past 12 months?
% of working time	
<b>32.</b> During your research ☐ Alone	activities, do you usually work alone or with other scientists?
☐ With other scientists	
33. Whenever you won transdisciplinary tea	k with other scientists, do you usually work in disciplinary or in inter- and ms?
□ Disciplinary	
□ Interdisciplinary	
□ Transdisciplinary	
<b>34.</b> Have you completed □ No	a "Habilitation" or are you currently working on one?
☐ Yes, I am working on my	Habilitation
☐ Yes, I have completed m	y Habilitation

### **Publication and conferences**

#### 35. Please list the approximate number of your publications with first and co-authorship:

	During PhD	After PhD
Number of books (monographs)		
Number of edited books		
Number of book chapters		
Number of peer-reviewed articles		
Number of non-peer-reviewed articles		
Number of reports		
Number of policy briefs		
Number of education materials		
Other (please specify):		

#### 36. What barriers have prevented you from doing more research and/or publishing?

	Research	Publishing
Lack of time outside of work		
Lack of time within work		
Language (e.g. proficiency in English)		
Lack of funding		
Rejection at peer review		
Lack of networks		
Lack of research capacity		
Heavy teaching loads		
Poor infrastructure		
Lack of incentives and acknowledgement by own university		
I did not want to publish more		
Other		

#### 37. In how many scientific conferences did you participate during or after your PhD?

	None	1–5	6–10	11–20	More than 20
During PhD					
After PhD					

#### 38. Did your participation in academia change due to the digital shift caused by Covid-19? In what way?

	•	•
	Participated in	Participated in
	more	fewer
Conferences		
Networks		
Courses		
Others, please specify:		

<ol><li>Was your research negatively affected by Covid-1</li></ol>	rea by covia-13:	very affected by	negatively	ı researcı	vvas youi	JJ.
--	------------------	------------------	------------	------------	-----------	-----

 $\quad \square \text{ yes}$ 

□ nc

#### 40. If yes, in what way did Covid-19 negatively affect your research?

Long text answer

41. Was your collaboration with other countries (e.g. Switzerland) negatively affected by Covid-19?
□ Yes
□ No
<b>42.</b> Has the digital shift (intensified through Covid-19) to more digital courses, conferences, and interactions facilitated your global access to academia?  — Yes, it was easier to access
□ No, it was harder to access
ino, it was natural to access
43. The online events you participated in were predominantly offered by which continent(s)?
□ Africa
□ Asia
□ North America
□ Australia
□ Europe
□ South America
□ Collaboration of several continents
44. Which of the following participation barriers did you encounter when accessing online settings?
Multiple responses possible
Williple Tesponses possible
□ None
□ Technical infrastructure
□ Access to electricity
□ Actual technical devices
☐ Care duties (e.g. juggling parenthood and PhD)
□ Conflicts between work and family roles (e.g. a lack of understanding or support by family for the chosen
profession, i.e. academia)
□ Language
□ Cultural differences
□ Disabilities (e.g. hearing impaired, visually impaired)
□ Stable mobile data or internet plan
□ Licenses
□ Space to work
□ Necessary infrastructure
□ National internet restrictions or risks of attendance
□ Other (please specify):

	Online	Face-to-face
Networking		
Approaching others		
Reaching out to/being contacted by others via email/social media (after meeting them)		
Approaching/exchanging with more senior researchers		
Presenting own research through presentation, poster, etc.		
Participating more within discussions		
Keeping existing networks active		
Others		
Power structures: The following three questions concern potential power structures within academia du		
Long text answer  Power structures: The following three questions concern potential power structures within academia du male/patriarchal privileges. Privileges, and hence discrimination, can occur in job pospublication, in knowledge production, and elsewhere.		ortunities for
Long text answer  Power structures: The following three questions concern potential power structures within academia du male/patriarchal privileges. Privileges, and hence discrimination, can occur in job pos	esearch is c	outside of the

49. Have you ever experienced any kind of power structures within academia which you are willing to share or elaborate?

Long text answer

# Certificate and support received in the IGS North-South

	Were you a full or an associate member?
□ Fu	
-	ssociate
	lon't remember
51.	Did you complete the IGS Certificate?
□ Ye	es e
	o, but I attended several courses (including the summer school)
	p, but I attended several courses (without the summer school)
	p, I only attended the summer school
□ No	p, I never attended any of the courses offered by the IGS
52.	What motivated you to complete the IGS certificate or courses?
Mul	tiple responses possible
□М	ethodological interest
□ Th	nematic interest
□ Ca	areer advancement
□ Ne	etworking with others
□ Ot	ther (please specify):
□ La □ Ce □ Cc □ La □ La	
	im not sure/hard to say
	in not sure, nara to say
55.	How did the fact that you were part of the NCCR North-South/IGS North-South network contribute to you finding a job?
Mul	tiple responses possible
□ Th	ne job was/is within the NCCR/IGS North-South network (e.g. post-doc)
	ne job was/is at a partner institution of the NCCR/IGS North-South
□Is	tarted working with my employer institution / organisation during my PhD
□lr	eceived the call for applications through the NCCR/IGS North-South network
□ Ot	ther (please specify):

1 = yes			
2 = no 0 = not applicable			
о – пос аррпсавле			
	PhD study	Career	
Specific disciplinary knowledge			
Interdisciplinary and transdisciplinary knowledge			
Quantitative research methods			
Qualitative research methods			
Management and administration			
Leadership of employees			
Practical application of scientific knowledge			
Advocacy skills			
Scientific writing			
Language skills			
Communication skills			
Teaching/lecturing/learning skills			
Computer skills			
Alumni network			
	louth Couth of	:2	
57. Are you still in contact with other NCCR/IGS N	iortii-soutii ai	ammr	
no			
58. Have you maintained alumni contact based on	any of the fol	lowing?	
Research on particular theme	-	_	
□ Research in particular region			
□ For career			
□ Friendship			
□ General networking			
59. How could the NCCR/IGS North-South, as a P	hD Alumni ne	work, improve it	s support you in resea
and publication?			
□ Additional mentorship			
□ Support networks			
☐ Facilitating dialogue with other researchers			
☐ Helping to make my research more visible	um incette ()		
☐ Strengthening research collaboration with Southe	ern institutions		
□ Other, please specify:			

56. Were these skills required for your PhD study and / or in your career?

Please fill each checkbox with a number:

## Demographics

Long text answer

er to self-describe	e/not to state:					
of origin						
oirth:						
of children						
None or pre- primary education	Primary education	Secondary education	Post- secondary (non- tertiary) education (e.g. vocational programme)	First stage of tertiary education (University degree)	(PhD)	of n
u <b>ld you classify y</b> le class le class	our parents' s	ocial status who				
	of origin  irth: of children  the highest eductor  None or preprimary education  uld you classify you class le class le class	of origin  irth: of children  the highest educational degree  None or pre- Primary primary education education  uld you classify your parents' s le class le class le class	of children  Che highest educational degree your mother at None or pre-Primary Secondary primary education education education  Luld you classify your parents' social status who le class le class  Le class  Lyou expect from the Alumni network?	of origin  irth: of children  The highest educational degree your mother and father achieve  None or pre- Primary Secondary Post- primary education education secondary education (non- tertiary) education (e.g. vocational programme)  ald you classify your parents' social status when you were grow le class le class	of origin  irth: of children  the highest educational degree your mother and father achieved?  None or pre- Primary Secondary Post- First stage of primary education education secondary tertiary (non- education tertiary) (University education degree) (e.g. vocational programme)  uld you classify your parents' social status when you were growing up?	of origin  irth: of children  the highest educational degree your mother and father achieved?  None or pre- Primary Secondary Post- First stage of Second primary education secondary tertiary stage education (non- education tertiary) (University education education degree) (PhD) (e.g. vocational programme)  uld you classify your parents' social status when you were growing up?