



DAAD Evaluation

Interim evaluation of the DAAD programme Bilateral SDG Graduate Schools

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Interim evaluation of the DAAD programme **Bilateral SDG Graduate Schools**

June 2019

FOREWORD

We are pleased to present the final report of the interim evaluation of the DAAD programme Bilateral SDG Graduate Schools.

The programme illustrates the commitment of both DAAD and the BMZ to the development agenda of the international community. The 2030 Agenda and the 17 Sustainable Development Goals (SDG) formulated therein represent a joint framework for all countries to work actively towards improving the situation of people and the environment. By establishing a higher education cooperation programme that explicitly seeks to contribute to the SDG, DAAD and BMZ have invited German universities and their partner institutions abroad to develop innovative and collaborative approaches to address economic, ecological and social development. This invitation has been met with enthusiasm by universities from different disciplines in Germany and partner countries in Africa, Asia and Latin America. Through the SDG-GS programme, seven graduate schools in fields ranging from the social sciences to the natural sciences have been established. Their work, training bright minds and structurally strengthening teaching and research, reminds us that whether we are in Bielefeld or in Maiduguri, human capital is key to tackle development challenges.

The SDG-GS programme represents a milestone in DAAD's endeavour to strengthen results-orientation in its BMZ financed programmes. In recent years, DAAD has invested substantial efforts in introducing results-oriented monitoring to its engagement in the field of development cooperation. DAAD has thereby taken concrete action to live up to the principles of the Paris Declaration on Aid Effectiveness. The SDG-GS programme is one of the first DAAD programmes planned according to new standards for results-orientation from the very beginning. Accordingly, this evaluation held particular learning potential. First, progress achieved so far could systematically be analysed against intended objectives of both the programme and the individual projects. Second, the evaluation was an occasion to assess the added value of the introduction of re-

sults-oriented planning for the participating universities and the DAAD. The evaluation found that results-oriented monitoring has supported learning and steering at the project and programme level. The evaluation team itself also found the structured proposals and reporting to be of added value for the evaluation assignment. In the same vein, we hope readers will enjoy the presentation of findings in this report along the Theory of Change of the programme.

We thank the representatives from the seven SDG Graduate Schools that were interviewed during the on-site visits in Germany and abroad. In addition, we'd like to thank the scholarship recipients that participated in the online survey. Without their participation, the evaluation would not have been possible. Special thanks to the thematic experts who accompanied the evaluation, including the on-site visits, and provided feedback on this report: Prof. Dr. Evamarie Hey-Hawkins (Leipzig University); Prof. i.R. Dr. Michael Krawinkel (Giessen University); Prof. Dipl.-Ing. Christa Reicher (RWTH Aachen University); and PD Dr. Stefan Schmalz (Jena University). We'd also like to thank the external expert on our team, Felix Seyfarth, who conducted on-site visits of two graduate schools and provided valuable inputs in the various stages of the evaluation. Dr. Imme Scholz (DIE – German Development Institute) contributed her expertise in debriefing workshops conducted at DAAD. Last but not least, the evaluation team extends its gratitude to the stakeholders involved in this evaluation at the DAAD, in particular Dorothee Schwab, Kirsten Bönninghausen and Lars Gerold from P31 (Section Institution Building in Higher Education) as well as Mareike Fehling from S12 (Statistics, monitoring and evaluation).

On behalf of the Syspons evaluation team
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CONTENTS

	LIST OF ABBREVIATIONS	11
	Management summary	12
	BACKGROUND AND OBJECTIVES OF THE EVALUATION	13
	THE PROGRAMME	13
	EVALUATION APPROACH	13
	MAIN FINDINGS.....	14
	RECOMMENDATIONS	15
1	Introduction	16
2	The Bilateral SDG Graduate Schools Programme	18
2.1	CONTEXT / GENESIS OF THE PROGRAMME	19
2.2	THEORY OF CHANGE AND IMPACT HYPOTHESES.....	19
2.3	TARGET GROUPS	23
2.4	PROGRAMME STRUCTURE AND FUNDED PROJECTS	23
2.4.1	GRADUATE SCHOOL “PERFORMING SUSTAINABILITY. CULTURES AND DEVELOPMENT IN WEST AFRICA”	24
2.4.2	GRADUATE SCHOOL “ROHAN – ROSTOCK-HANOI SDG GRADUATE SCHOOL”	24
2.4.3	GRADUATE SCHOOL “GERMAN-ETHIOPIAN GRADUATE SCHOOL: CLIMATE CHANGE EFFECTS ON FOOD SECURITY” (CLIFOOD)	25
2.4.4	GRADUATE SCHOOL “YAOUNDÉ – BIELEFELD BILATERAL GRADUATE SCHOOL NATURAL PRODUCTS WITH ANTIPARASITE AND ANTIBACTERIAL ACTIVITY” (YABINAPA)	25
2.4.5	GRADUATE SCHOOL “WITS-TUB URBAN LAB INTERDISCIPLINARY BILATERAL POSTGRADUATE STUDIES PROGRAMME FOR SUB-SAHARAN AFRICA”	26
2.4.6	GRADUATE SCHOOL “DOCTORAL STUDIES SUPPORT PROGRAM (DSSP) ON ENVIRONMENTAL PEACE-BUILDING AND DEVELOPMENT IN COLOMBIA”	26
2.4.7	GRADUATE SCHOOL “POSTGRADUATE PROGRAM ON SUSTAINABLE DEVELOPMENT AND SOCIAL INEQUALITIES IN THE ANDEAN REGION” (TRANDES)	27

4.1	RELEVANCE	33
4.1.1	RELEVANCE WITH REGARD TO INTERNATIONAL DEVELOPMENT AGENDAS	33
4.1.2	RELEVANCE FOR BMZ AND POLICIES OF THE GERMAN GOVERNMENT	36
4.1.3	RELEVANCE FOR PARTNER COUNTRIES	37
4.1.4	RELEVANCE FOR PARTNER UNIVERSITIES	40
4.1.5	RELEVANCE FOR INDIVIDUAL BENEFICIARIES	41
4.1.6	ASSESSMENT OF RELEVANCE	43
4.2	EFFECTIVENESS	44
4.2.1	OUTCOME 1: QUALIFIED MASTER AND PHD STUDENTS HAVE BEEN TRAINED IN STUDY PROGRAMMES RELEVANT TO DEVELOPMENT	44
4.2.2	OUTCOME 2: THE PARTNER INSTITUTIONS OFFER SDG-RELATED STUDY COURSES DEPLOYING ICT-BASED METHODS IN KEEPING WITH THE LOCAL CONTEXT AND CUTTING-EDGE SCIENTIFIC KNOWLEDGE	47
4.2.3	OUTCOME 3: THE SDG RESEARCH CAPACITIES HAVE BEEN EXPANDED	50
4.2.4	OUTCOME 4: THE GRADUATE SCHOOLS OPERATE WITHIN NETWORKS AND WORK TOGETHER WITH RELEVANT EMPLOYERS AND STAKEHOLDERS FROM POLITICS, BUSINESS AND CIVIL SOCIETY	53
4.2.5	OUTCOME 5: INNOVATIVE FINANCIAL AND STRATEGIC APPROACHES TOWARDS ENSURING THE SUSTAINABILITY OF THE SDG GRADUATE SCHOOLS HAVE BEEN DEVELOPED	56
4.2.6	OUTCOME 6: GERMAN UNIVERSITIES HAVE GAINED EXPERTISE IN DEVELOPMENT COOPERATION	57
4.3	PROJECTED IMPACTS	58
4.3.1	IMPACT 1: THE TRAINED SPECIALISTS ARE WORKING ON SOLVING DEVELOPMENT-RELEVANT ISSUES	58
4.3.2	IMPACT 2: THE QUALITY AND RELEVANCE OF TEACHING AND RESEARCH AT THE PARTNER HIGHER EDUCATION INSTITUTIONS HAS BEEN IMPROVED	61
4.3.3	IMPACT 3: THE SDG GRADUATE SCHOOLS ARE COMPETITIVE AND SUSTAINABLE	62
4.3.4	ASSESSMENT OF THE DEVELOPMENT OF THE CAPACITIES OF THE PARTNER UNIVERSITIES	63
4.3.5	UNINTENDED EFFECTS	65
4.3.6	ASSESSMENT OF EFFECTIVENESS AND PROJECTED IMPACTS	66

4.4	EFFICIENCY	67
4.4.1	IMPLEMENTATION EFFICIENCY BETWEEN DAAD AND THE PROJECTS	67
4.4.2	ASSESSMENT OF EFFICIENCY	68
4.5	SUSTAINABILITY	68
4.5.1	ANALYSIS OF SUSTAINABILITY	68
4.5.2	ASSESSMENT OF SUSTAINABILITY	69
4.6	COORDINATION, COMPLEMENTARITY AND COHERENCE	70
4.6.1	ANALYSIS OF COORDINATION, COMPLEMENTARITY AND COHERENCE	70
4.6.2	ASSESSMENT OF COORDINATION, COMPLEMENTARITY AND COHERENCE	70
4.7	CROSS-CUTTING THEMES	71
4.7.1	GENDER	71
4.7.2	ICT	73
4.7.3	RESULTS-ORIENTED MONITORING	75
4.7.4	ASSESSMENT OF CROSS-CUTTING THEMES	77

5	Conclusions	78
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6	Recommendations	82
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6.1	RECOMMENDATIONS TO BMZ	83
6.2	RECOMMENDATIONS TO DAAD AND BMZ	83
6.3	RECOMMENDATIONS TO DAAD	83

LIST OF ABBREVIATIONS

BMBF

German Federal Ministry of Education and Research

BMZ

German Federal Ministry for Economic Cooperation and Development

CLIFOOD

German-Ethiopian Graduate School:
Climate Change Effects on Food Security

DAAD

German Academic Exchange Service

DFG

German Research Foundation

DSSP

Doctoral Studies Support Program on Environmental
Peace-Building and Development in Colombia

FUB

Freie Universität Berlin

GoC

Government of Colombia

GoCa

Government of Cameroon

GoE

Government of Ethiopia

GoN

Government of Nigeria

GoV

Government of Vietnam

HUST

Hanoi University of Science and Technology

ICT

Information and communication technology

IDEA

Instituto de Estudios Ambientales

IMPM

Cameroon Institute of Medical Research and Studies
of Medicinal Plants

LANACOME

Cameroon National drugs quality control and
validation Laboratory

LIKAT

Leibniz Institute for Catalysis

OECD-DAC

Organisation for Economic Cooperation and Development –
Development Assistance Committee

PUCP

Pontificia Universidad Católica del Perú

RoHan

Rostock-Hanoi SDG Graduate School

RSA

Republic of South Africa

SDG-GS

Sustainable Development Goals-Graduate School

SDG

Sustainable Development Goals

trAndeS

Postgraduate Program on Sustainable Development and
Social Inequalities in the Andean Region

TUB

Technische Universität Berlin

UN

United Nations

UNESCO

United Nations Educational, Scientific and Cultural
Organization

VNU

Vietnam National University

Wits-TUB

Wits-TUB Urban Lab Interdisciplinary Bilateral Postgraduate
Studies Programme for Sub-Saharan Africa

YaBiNaPa

Yaoundé – Bielefeld Bilateral Graduate School Natural
Products with Antiparasite and Antibacterial Activity

ZEF

Center for Development Research

Management summary

BACKGROUND AND OBJECTIVES OF THE EVALUATION

The consultancy Syspons has been commissioned by the German Academic Exchange Service (DAAD) to conduct the interim evaluation of the Bilateral SDG Graduate Schools programme.

The focus of the interim evaluation lay mainly at programme level. The evaluation was intended to contribute to accountability towards the German Federal Ministry for Economic Cooperation and Development (BMZ), which is funding the programme. A further objective is to contribute to learning to be able to improve the programme, and to analyse the usefulness of the programme's monitoring. To a lesser extent, the evaluation was also aimed at analysing the progress towards

the specific objectives of the seven projects funded within the programme.

The evaluation focussed on the criteria relevance, effectiveness, achievement of objectives and impacts as well as on efficiency and sustainability. In addition, the analysis encompasses the aspects of coordination, complementarity and coherence. Finally, gender equality, the use of information and communications technology (ICT) and results-oriented monitoring were examined as cross-cutting issues. The findings of the interim evaluation led to the formulation of recommendations to BMZ and DAAD.

THE PROGRAMME

The Bilateral SDG Graduate Schools programme was initiated in 2016 with the aim to make a contribution to the UN Sustainable Development Goals (SDG) through higher education development cooperation. As part of the programme, the DAAD promotes the establishment of SDG Graduate Schools within the framework of bilateral partnerships between higher education institutions in Germany and developing countries. The aim is to create high-quality study offers linked to the SDG and to strengthen research at the partner universities to enhance

both individual and institutional capacities. The programme thus intends to make a twofold contribution by, on the one hand, promoting the expansion of high-quality higher education and, on the other, contributing to development by training young academics and producing research relevant to the SDG. Seven different cooperation projects in partnership with universities in Vietnam, South Africa, Peru, Ethiopia, Cameroon, Nigeria/Ghana and Colombia are currently being implemented until 2020.

EVALUATION APPROACH

The evaluation design is based on a contribution analysis based on the programme's Theory of Change to assess how and why changes have (or have not) taken place so far. In addition, an analysis of the development of institutional capacities of the partner abroad based on Peter Morgan's 5 C model was implemented. Methods of data collection included document analysis, interviews during on-site visits to all German partner universities and four partner universities abroad, as well as an

online survey of scholarship recipients. All site visits of the four projects subject to an in-depth analysis were conducted by an evaluator from Syspons, and a professor as thematic expert in the respective academic discipline of the project. In addition, each site visit abroad was accompanied by either a representative from the DAAD programme team or the DAAD evaluation unit. Evaluation results were subject to data, researcher and method triangulation.¹

¹ At the request of the DAAD, the inspections abroad were accompanied by the DAAD department in charge of the SDG-GS programme, as they wanted to contribute its content-related expertise to the evaluation. Moreover, according to the DAAD, this procedure proved itself in other evaluations. Consequently, it can not be ruled out that the answering behavior of the interview partners abroad was influenced by the presence of the DAAD department. The evaluation team, however, always had the right to conduct interviews alone if deemed necessary.

MAIN FINDINGS

The SDG-GS programme is **highly relevant** for international and national development agendas. While all projects contribute to SDG 4 (quality education) and further SDG, it is not however always made explicit in external communication which project contributes to which specific SDG. This is a missed opportunity, as concise reference to contents of development agendas is instrumental in articulating the added value of the SDG Graduate Schools beyond the given academic discipline.

In addition to being relevant to development agendas, the programme also corresponds to the needs of the partner countries, partner universities and individual beneficiaries. A **strength** of the programme lies in its **flexible bottom-up approach**, in which participating universities from Germany and abroad jointly develop a tailor-made project design that addresses context-specific needs. In terms of **institutional capacity building**, the focus on strengthening research and contributing to building up the pool of faculty is not only relevant for currently funded projects, but potentially also for other partner countries of German development cooperation. This relevance stems from a lack of qualified lecturers and a focus on education at the expense of research that is common in the higher education system of developing countries. In terms of **individual capacity building**, the combination of high-quality study offers and funding for the studies makes the programme very relevant for scholarship recipients. The evaluation has shown that the target groups for individual scholarships in the SDG-GS programme (Master, PhD and Postdocs) go beyond what is commonly understood as the target group of a Graduate School or the German *Graduiertenschule* and *Graduiertenkolleg* (all terms are used with reference to the programme, yet they describe different concepts). At the same time, the funding of all groups is highly relevant. Through the academic support and access to international networks with renowned scholars, students and researchers benefit from cross-pollination of ideas and get an edge in producing quality research output. This increases chances for publishing in international journals. As this is beneficial for the standing of the partner universities, the relevance of **individual and institutional capacity development is closely intertwined**.

A year and a half before the end of the first funding phase, the programme already has **promising results to show for** in terms of institutional and individual capacity building. The programme **attracts qualified students** who are highly satisfied with the quality of the study programmes they get to attend. Selecting the academically strongest candidates for scholarships contributes to making the programme highly relevant to the partner universities. At the same time, due to structural inequalities with regard to access to primary and secondary education in partner countries of German development cooperation, there can be a **challenge in reconciling academic excellence and equitable access to opportunities in higher education**. In addition, the evaluation team has identified a **weakness** regarding **gender equality**. DAAD provides

no orientation as to what is expected from the projects in this regard. The projects' understanding of gender equality seldom goes beyond intending to have an adequate number of female scholarship recipients. An analysis of the gender ratio among scholarship recipients shows that women are not adequately represented in at least two projects.

The **study offers developed or revised** within the programme are of **high quality and relevant to the SDG and the local context**. The contents of the curricula and the didactics have been assessed positively by the professors accompanying the evaluation team in the on-site visits. The only dimension in which the study offers do not always live up to the aspiration formulated in both the programme's Theory of Change and the project proposals is the incorporation of ICT. The use of ICT in the study offers is overall perfunctory. Incorporating ICT in study offers is however also not always a priority of partner universities, and expectations regarding the use of ICT have not been defined by either BMZ or DAAD.

Some contributions to improved teaching are **already institutionally anchored** as **new study offers** have been approved by the partner universities, a **strength** in terms of **sustainability**. The projects that were already successful in getting their study offers officially integrated into the programme of the partner universities were those that had explored corresponding requirements at the partner universities early on. Moreover, projects that made major investments in scientific research are conscientious about training lab personnel at the partner universities abroad. Concepts for financing running costs for maintenance and lab material after DAAD funding runs out still need to be fleshed out. An element that bodes well for sustainability is that the projects are active in submitting funding proposals to complement DAAD funding, and some of these proposals have been successful and will finance research activities and scholarships. At the same time, it has to be acknowledged that securing alternative third-party funding covering the scope and volume of what the SDG-DAAD programme supports constitutes a challenge, as the **programme is exceptional in its comprehensive approach linking individual and institutional capacity development**. Against this background, DAAD has not specified its expectations in terms of sustainability to the projects funded within the SDG-GS programme.

Depending on the academic discipline, the needs in terms of increasing research capacities are highly heterogeneous. Overall, scholarship recipients and representatives from the partner universities report **positive results in terms of increased individual and institutional research capacities**. Individual research capacities feed into the institutional research capacities, especially when scholarship recipients act as multipliers, e.g. when they have teaching responsibilities at their home institutions. In addition, the two projects in the natural sciences have considerably strengthened research capacities of

the partner universities through the acquisition of research equipment.

While networking with stakeholders from civil society, the public sector and the private sector remains limited, **networking with stakeholders from academia** has been very strong, even though it is not an explicit objective of the programme. A contribution to **South-South networking** constitutes a **positive unintended effect**. Given the focus of the graduate schools on training scholars and strengthening research, academic networking seems at least as relevant as other types of networking in terms of employability of scholarship holders.

The programme is being **run efficiently** both between DAAD and the projects and within the projects. The support provided by programme staff in organizing network events, in conducting project visits and in responding to day-to-day queries

is highly valued by the projects. Minor room for improvement at the level of DAAD can be seen with regard to the compiling of information on recurring administrative issues for the universities and in providing more access to information on administrative issues and results-oriented planning and monitoring for partner universities abroad. At project level, all projects are largely on track to fulfil their objectives and indicators. The introduction of **results-oriented planning, monitoring and reporting** at programme and project level has been a success. Both the DAAD programme staff and the projects have stated that it constitutes an added value for their work. At the same time, some universities also perceive the indicators to be rigid. The evaluation has identified the **commitment of project coordinators in Germany and abroad** as a success factor for implementation efficiency, as the partnerships involve a lot of give-and-take that cannot always be planned for in advance.

RECOMMENDATIONS

The evaluation team has formulated 12 recommendations based on the findings of the evaluation. These are divided into recommendations to BMZ (1) and recommendations to DAAD (11).

Recommendation to BMZ

Recommendation 1: The BMZ should continue to fund the programme. In a second funding phase, the budget should be increased to fund additional projects.

Recommendations to BMZ and DAAD

Recommendation 2: DAAD should engage in dialogue with BMZ and the universities to plan for more realistic and context-relevant ICT measures in the projects.

Recommendations to DAAD

Recommendation 3: DAAD should be more explicit about the rationale for funding Master and Postdoc scholarships within the Graduate Schools.

Recommendation 4: The projects and the programme should convey the contribution to specific SDG.

Recommendation 5: Networking between academic stakeholders, including stakeholders from the Global South, should explicitly be integrated into the programme's Theory of Change. For a possible second funding phase of the projects, expanding the cooperation to multilateral partnerships should more explicitly be an option (maximum of three partners, out of which two should be from the Global South)

Recommendation 6: DAAD should ask projects that intend to establish new study offers to explain in the project proposals to what extent requirements for the recognition of these new study offers by the partner universities have been analysed.

Recommendation 7: DAAD should increasingly offer formats for knowledge transfer on project administration and results-oriented monitoring to the partners abroad.

Recommendation 8: DAAD should communicate more explicitly towards the universities that there is flexibility to adapt initial project planning, as long as modifications are justified and explained.

Recommendation 9: DAAD should elaborate a concept that articulates its expectations in terms of sustainability and communicate these expectations to the universities.

Recommendation 10: DAAD should position itself regarding the extent to which it would like projects to take into account socio-economic criteria in the selection of scholarship recipients in addition to academic criteria, thereby encouraging them to take into account the "Leave no one behind" principle of the 2030 Agenda.

Recommendation 11: DAAD should define its aspiration level regarding contributions to gender equality in the SDG-GS programme.

Recommendation 12: DAAD should encourage the projects to offer incentives for the career development of junior staff involved in project coordination in Germany and abroad to limit the risk of employee turnover.

1

Introduction

The consultancy Syspons has been commissioned by the German Academic Exchange Service (DAAD) to conduct the interim evaluation of the Bilateral SDG Graduate Schools programme.

The focus of the interim evaluation lay mainly at programme level. The evaluation was intended to contribute to accountability towards the German Federal Ministry for Economic Cooperation and Development (BMZ), which is funding the programme. A further objective is to contribute to learning to be able to improve the programme, and to analyse the usefulness of the programme's monitoring. To a lesser extent, the evaluation was also to analyse the progress towards the specific objectives of the seven projects funded within the programme.

The evaluation focussed on the criteria relevance, effectiveness, achievement of objectives and impacts, as well as on efficiency and sustainability. In addition, the analysis encompasses the aspects of coordination, complementarity and coherence. Finally, gender equality, the use of information and communications technology (ICT) and results-oriented monitoring were examined as cross-cutting issues. The findings of the interim evaluation led to the formulation of recommendations to BMZ and DAAD.

The users of the evaluation are the BMZ, DAAD (in particular management, the programme section P 31, the section for statistics, monitoring and evaluation S 12, and the section for development cooperation S 13), cooperation partners and project coordinators in Germany and abroad, as well as the general public.

The interim evaluation was conducted between October 2018 and June 2019. In this period, the Syspons evaluation team conducted data analysis, implemented an online survey of scholarship recipients, and conducted interviews during on-site visits to all German universities involved in the programme and four partner universities abroad. The on-site visits of the four projects subject to in-depth analysis were accompanied by professors with thematic expertise in the academic discipline of the given project. On the basis of the data collected, Syspons developed recommendations for the programme.

This final report documents the results of the interim evaluation. Its structure is as follows:

Chapter 2 describes the programme, including its Theory of Change, and the projects funded within the programme.

Chapter 3 provides an overview of the evaluation design.

Chapter 4 presents the evaluation results.

Chapter 5 contains the conclusions.

Chapter 6 documents the recommendations.

The annex includes the bibliography, a comprehensive presentation of evaluation design and methodological approach, the analytical grid and the data collection instruments.

2

The Bilateral SDG Graduate Schools Programme

- 2.1 CONTEXT / GENESIS OF THE PROGRAMME
- 2.2 THEORY OF CHANGE AND IMPACT HYPOTHESES
- 2.3 TARGET GROUPS
- 2.4 PROGRAMME STRUCTURE AND FUNDED PROJECTS

2.1 CONTEXT / GENESIS OF THE PROGRAMME

Strengthening global partnerships is one of the five key levers to help achieve the 17 UN Sustainable Development Goals (SDG) adopted in 2015. The 2030 Agenda distinguishes itself from its predecessor agenda – the MDG – by its partnership approach, which is to be revived and expanded in the context of the SDG. The agenda furthermore intends to give all people access to high-quality education and the broadest possible participation in higher education.

The DAAD programme Bilateral SDG Graduate Schools, launched in 2016, combines the development of partnerships for international and development cooperation with the strengthening of higher education in the partner countries. As part of the programme, the DAAD promotes the establishment of SDG Graduate Schools (henceforth: SDG-GS) within the framework of bilateral partnerships between higher education institutions in Germany and developing countries. The aim is to create high-quality study offers at the partner universities that are oriented towards the core areas of the 2030 Agenda. Therefore, experts and lecturers at master's, doctoral and postdoctoral levels are trained in degree programmes that are as interdisciplinary as possible. The newly created courses and research capacities at the partner universities are intended to convey relevant specialist skills and to strengthen structures in teaching and research. In addition, a stay at the German partner institution should enable beneficiaries

to acquire intercultural skills and experience in working in international teams. If possible, the degrees should be awarded by the university in the developing country. With the targeted use of information and communication technologies, the programme also promotes the digitalization of universities at home and abroad. The programme thus makes a twofold contribution by, on the one hand, promoting the expansion of high-quality higher education and, on the other, creating (pre-) conditions for the development of innovative solutions to enable sustainable development on a global level.

An international commission of experts selected seven projects with a regional focus on the African continent, Latin America and Asia. Starting in 2016, one Graduate School each was funded in Vietnam, South Africa, Peru, Ethiopia and Cameroon, and one in Nigeria/Ghana. In 2018, another SDG Graduate School was launched in Colombia².

The funding will last until 2020 and includes the promotion of international mobility as well as the purchase of teaching and learning materials and personnel support. The choice of instruments as well as the setting of priorities are left to the implementing universities. At the project level, this results in a variety of implementation forms that address a wide range of topics. These include, for example, the topics of “social inequality” in Peru or “herbal pharmacy” in Cameroon.

2.2 THEORY OF CHANGE AND IMPACT HYPOTHESES

In order to visualise the objectives of the programme and how the programme intends to reach them, a Theory of Change was developed by the DAAD staff during the programme design phase. The Theory of Change consists of various interconnected and interdependent

- **Inputs³** (financial, human and material resources that the DAAD and its partners use in the course of providing funding);
- **Activities** (actions or activities needed to achieve specific outputs);
- **Outputs** (technical capacities, personal competence or knowledge acquired, which result from the use of resources and the implementation of activities);

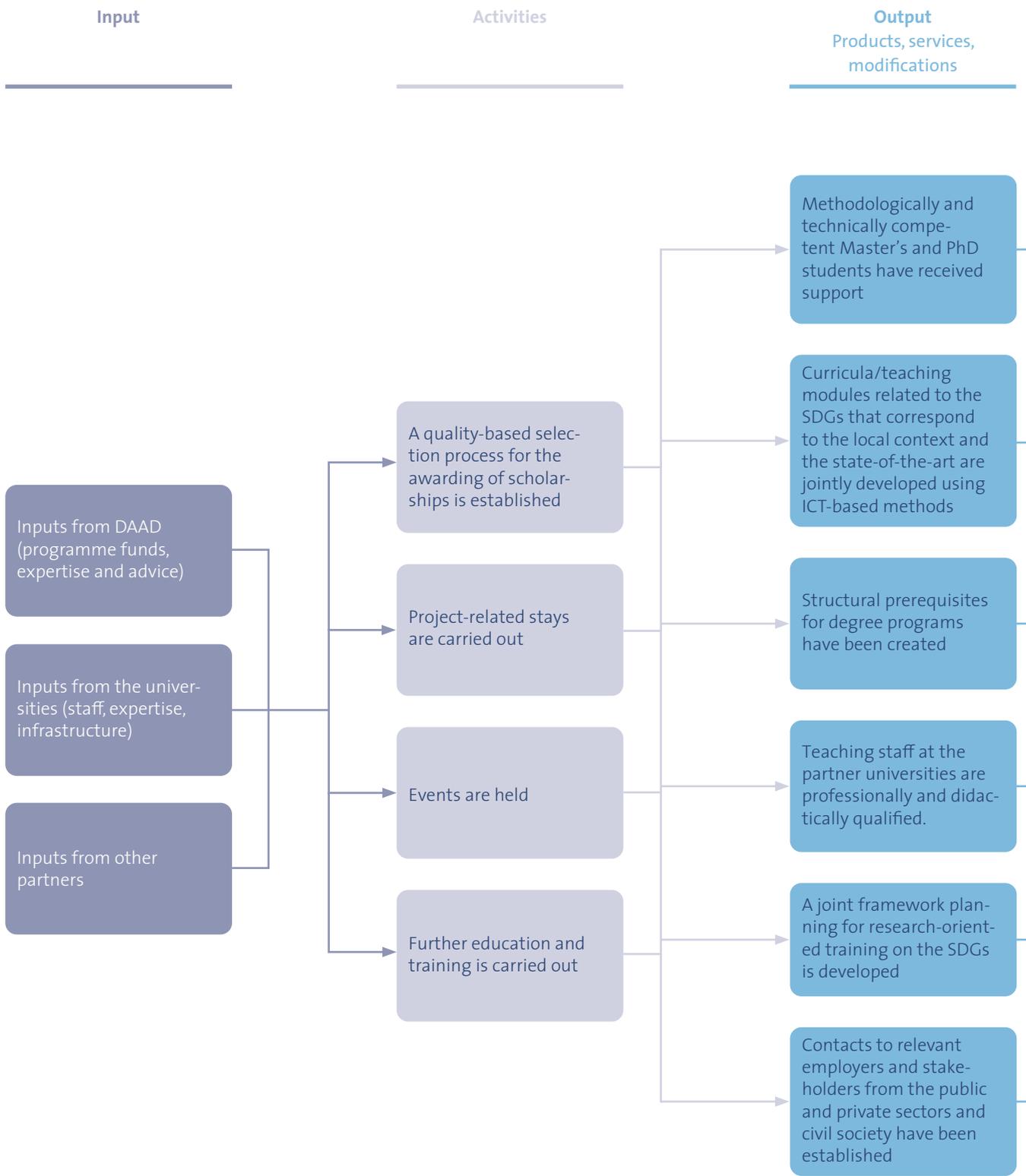
- **Outcomes** (direct short and medium-term, positive and negative, intended and unintended impacts resulting from the use of outputs for the target group or for public goods); and
- **Impacts** (longer-term development effects).

In the following, this Theory of Change is explained in detail along the impacts, outcomes and outputs. It should be noted that the Theory of Change reflects the impact logic of the overall programme, whereas not all projects have to offer all activities and outputs or contribute to all outcomes of the programme. This is due to the universities' freedom in the project design and differences in the selection of instruments used.

2 After the initial selection of the six projects mentioned above, available funds made it possible to support a seventh project. Initially, the bilateral SDG Graduate School “Cuban-German School for Interdisciplinary Development Studies” (CG-SID) received the grant. However, this cooperation between the University of Bonn and the Universidad Central “Marta Abreu” de Las Villas was unilaterally terminated by the Cuban partner in autumn 2017. As a result, the DAAD granted the relocation of the project to another Latin American country. The new cooperation partner is the Instituto de Estudios Ambientales of the Universidad Nacional de Colombia.

3 The definitions listed here correspond to those used by the DAAD for its programmes.

Figure 1
Results framework of the Bilateral SDG-Graduate Schools programme

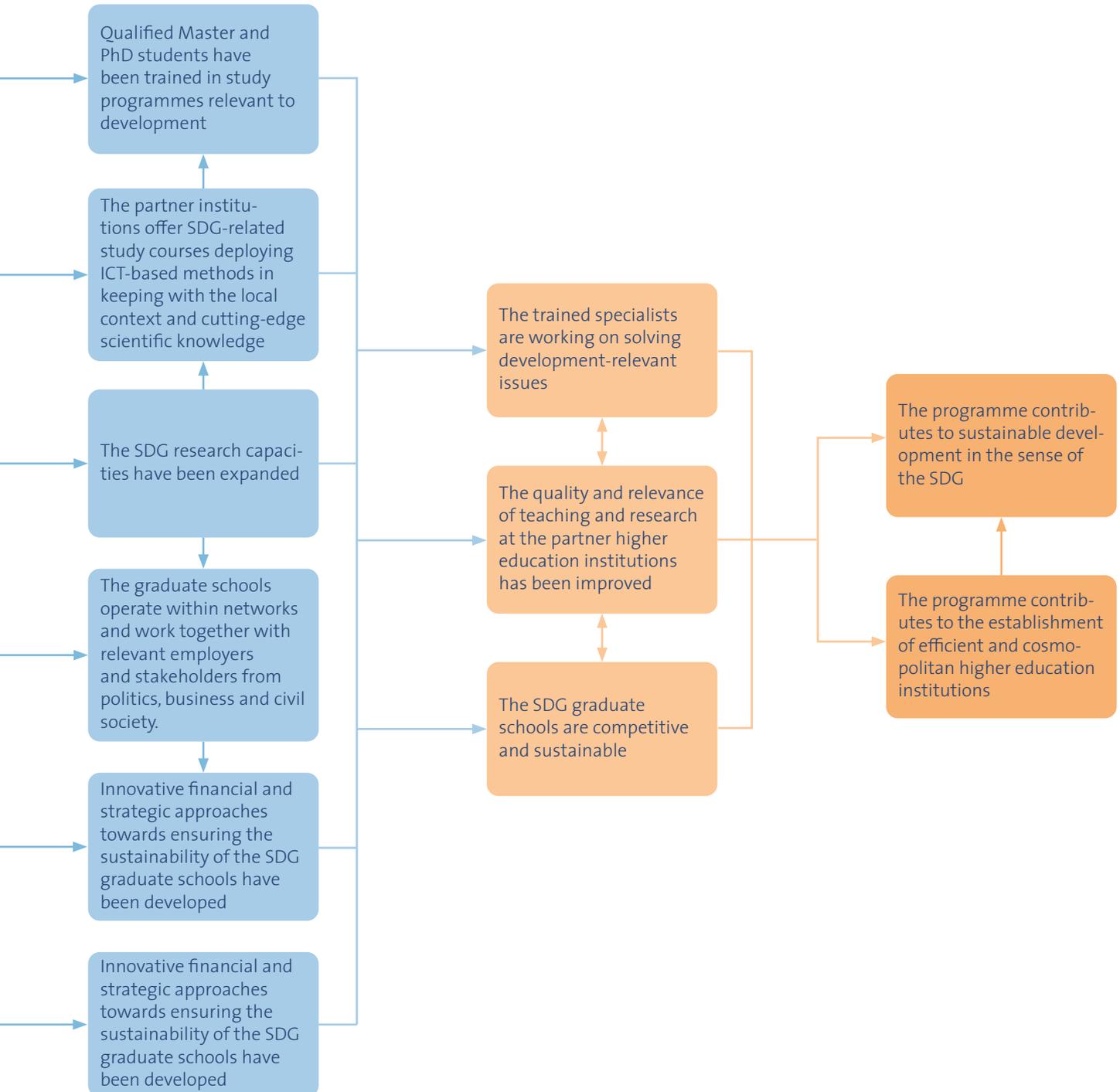


Outcome

Direct-short- and medium-term effects

Impact

Longer-term development impacts



At the impact level, the SDG-GS programme pursues three primary and two overarching longer-term effects. At the overarching level, the programme is intended to make a contribution to sustainable development in the sense of the SDG and to the establishment of efficient and cosmopolitan universities. In order to achieve these two long-term goals, the programme aims to improve the quality and relevance of teaching and research at the partner universities. An improvement in the quality and relevance of teaching and research is in turn conditioned by and has a positive effect on two further longer-term effects: Competitive and sustainable SDG Graduate Schools and trained specialists working on solutions to development-related problems.

In order to contribute to long-term effects (impact level), the SDG-GS programme pursues six objectives at the outcome level, which it seeks to achieve through different **outputs**:

- **Outcome 1:** Qualified Master and PhD students have been trained in study programmes relevant for development.

Impact hypothesis 1: If methodologically and technically competent Master and PhD students receive corresponding support (output level), they are trained in training courses and programmes relevant to development.

- **Outcome 2:** The partner universities offer study programmes relevant to the SDGs and the local context. These correspond to the state of the art and incorporate ICT.

Impact hypothesis 2: If the teaching staff at the partner universities are professionally and didactically qualified (output level), the partner universities are capable of offering context-sensitive and scientifically up-to-date SDG-related study programmes using ICT-based methods.

Impact hypothesis 3: The partner universities are furthermore capable of offering context-sensitive and scientifically up-to-date SDG-related study programmes (which take into account ICT-based methods), if curricula and teaching modules that correspond to the local context and the scientific state of the art are developed jointly (output level).

- **Outcome 3:** The capacities in research on the SDG have been increased.

Impact hypothesis 4: The capacities in research on the SDG are expanded, if a joint framework planning for research-oriented training on the SDG is developed (output level).

Impact hypothesis 5: The capacities in research on the SDG are expanded if the partner universities' staff at the partner universities are professionally and didactically qualified (output level).

- **Outcome 4:** The Graduate Schools work in networks with relevant employers and stakeholders from the public sector, the private sector and civil society.

Impact hypothesis 6: For Graduate Schools to cooperate in networks with relevant employers and stakeholders from the public sector, the private sector and civil society, contacts with relevant employers and stakeholders must be established in a first step (output level).

- **Outcome 5:** Partner universities have developed innovative financial and strategic approaches to ensure the sustainability of the SDG Graduate Schools.

Impact hypothesis 7: The development of innovative financial and strategic approaches and strategies to ensure the sustainability of the Graduate Schools is successful, if they cooperate in networks with relevant employers and stakeholders from the public sector, the private sector and civil society (Outcome 4).

- **Outcome 6:** German universities have acquired expertise in development cooperation.

Impact hypothesis 8: German universities gain expertise in development cooperation, if they, through the SDG Graduate Schools, establish contacts to relevant employers and actors from the public sector, the private sector and civil society.

In order to deliver the outputs necessary to bring about medium and long-term changes, a series of **activities** are implemented. First, a quality-based selection process for awarding scholarships is established. In addition, joint events as well as further education and training are carried out. Project-related stays in Germany or other (partner) countries are furthermore carried out to support internationalisation of the universities and the individual beneficiaries. **Inputs** for the activities are provided, on the one hand, by the DAAD (programme funds, expertise and advice) and, on the other hand, by the participating universities (staff, expertise, infrastructure) and, if necessary, other partners.

2.3 TARGET GROUPS

Based on the programme documents, the target groups of the SDG-GS programme can be divided into intermediaries and direct target groups. Specific stakeholders can thus be intermediaries as well as direct target groups of the programme. For the mid-term evaluation, these two categories are defined as follows:

- **Intermediaries** are organisations, institutions, associations or persons which mediate between the target groups and the objectives of the programme and which are supposed to facilitate the achievement of the objectives.
- Stakeholders which are addressed directly by the programme and on which an impact is to be observed/achieved, will be referred to as the **direct target group** of the programme.

Projects with universities from countries on the DAC list are eligible for funding. The following target groups can be distinguished in the SDG-GS programme:

- **Universities** participating in the programme, from developing countries (DAC list) and Germany, can be defined both as intermediaries and as direct target groups. On the one hand, their structures are to be strengthened by the programme (direct target group); on the other hand, they are supposed to train qualified Master and PhD students in development-relevant study programmes (intermediaries).

- **Master students, doctoral students and junior researchers** act as a direct target group, since they are meant to be trained by the programme in development-related study programmes and to benefit from improvements in the conditions under which they conduct research. At the same time, they will in the long term become intermediaries who, as trained specialists, contribute to sustainable development in the sense of the SDG.
- **Lecturers**, on the other hand, can be described both as intermediaries and direct target groups. They act as intermediaries because they impart knowledge to Master and PhD students in order to train them in courses relevant to development. At the same time, however, they can also be direct target groups if they participate in research cooperation or receive further training (e.g. in didactic methods) within the framework of the programme.
- **Society and the working world** (including businesses and public administrations) in developing countries can also be classified as intermediaries who benefit indirectly from study programmes relevant to development and trained future university teachers.

2.4 PROGRAMME STRUCTURE AND FUNDED PROJECTS

The SDG-GS programme has one overarching Theory of Change (see chapter 2.2), to which the seven projects / Graduate Schools funded within the programme contribute. Each project is implemented as a partnership between a German university and one or more universities abroad. They are jointly responsible for the planning and implementation of the projects. The funding phase of the programme is at first limited to five years, from 2016 to 2020.

Although all seven projects pursue a common objective, they are highly heterogeneous in terms of subject matter and organisation. Various measures can be implemented with funding from the programme, and each project is free to select the measures most appropriate to support capacity development in the respective context. The measures that can be funded include⁴:

- Long-term scholarships for foreign students, doctoral students and junior researchers
- Short-term stays of foreign and German students, doctoral students and academics
- Visiting/guest chairs for scientists from developing countries
- Outreach (flyers, brochures, posters)
- Participation in conferences
- Translations and interpreters

4 Cf. Ibid.

- Scientific publications of the German and foreign partner universities
- Workshops, seminars and other scientific events
- Thematic and cultural supporting programmes
- Expenses for the administration of the Graduate Schools
- Online activities
- Purchasing of small equipment
- Expenses for accreditation
- Language courses for students, doctoral students and scientists
- Expenditures for project staff and supporting staff, both domestic and abroad
- Expenses for fees/remuneration

To provide an overview of how the different projects make use of these instruments, the seven Graduate Schools and their thematic foci are presented below.

2.4.1 GRADUATE SCHOOL “PERFORMING SUSTAINABILITY. CULTURES AND DEVELOPMENT IN WEST AFRICA”

The Graduate School “Performing Sustainability. Cultures and Development in West Africa” is a German-Nigerian partnership. The University of Hildesheim is the German partner, while the University of Maiduguri is the Nigerian partner. The University of Cape Coast in Ghana as an associated partner, is offering a safe study location to Nigerian students, should the security situation in their home country deteriorate. This is important since the University of Maiduguri is located in an area affected by the terrorist organisation Boko Haram.

The project offers scholarships to both Nigerian and Ghanaian students. The Nigerian students (PhD and Master) are studying at Maiduguri University, but together with the Ghanaian students they take part in block seminars at Cape Coast University. Ghanaian students also take part in block seminars in Nigeria, but in Abuja and not in Maiduguri.

The overarching goal of the Graduate School is to contribute to the achievement of SDG 16 “Peace, justice and strong institutions”. The project aims at conveying state of the art of cultural science research capacities in the SDG to a group of 12 doctoral students and 6 Master students in Nigeria and Ghana. A special focus is put on the communication of findings from peace and conflict research. Within the framework of

a Master programme and a structured doctoral programme, students qualify to explore cultural activities for peacekeeping, conflict prevention, conflict resolution, health promotion and environmental protection in their own contexts. Digital learning promotes an exchange between the project’s participants. Subsequently, the students disseminate the knowledge they have acquired through teaching and contribute to the implementation of the SDG through (own) educational and cultural initiatives.

The Graduate School facilitates five three-month stays of African guest lecturers in Germany. In addition, a three-month stay per year of an international scholar at one of the African partner universities is funded. PhD students are encouraged to complete a three-month research stay in Germany. Moreover, three German (post-) doctoral students, through annual research stays, form tandem research teams with African students. The University of Hildesheim offers doctoral students the possibility of completing a double doctorate degree with co-supervision. Finally, the UNESO Chair and the Centre for World Music at the University of Hildesheim strengthen their international cooperation through an exchange programme with African scientists.⁵

2.4.2 GRADUATE SCHOOL “ROHAN – ROSTOCK-HANOI SDG GRADUATE SCHOOL”

The SDG Graduate School “RoHan” is a joint project of the University of Rostock and the Hanoi University of Science and Technology (HUST) in cooperation with the Vietnam National University (VNU) and the Leibniz Institute for Catalysis (LIKAT). Given the rapidly growing Vietnamese economy, environmental protection and sustainable development are becoming more and more important. In this context, catalysis is a key

method for sustainable resource management, which is not only applied in the energy sector, but also in the health sector, in agriculture and in wastewater management. Thus, the Graduate School aims to contribute to progress on the SDG by training and educating future specialists and managers in the field of catalysis according to international standards. Expertise in the field of catalysis has been anchored in Germany

5 Cf. DAAD (2018): Z 57316216. Universität Hildesheim. Bonn: DAAD.

for more than a hundred years. It is in great demand in Vietnamese science and industry and can be used in various ways.

RoHan aims to impart knowledge and competence on catalysis as a motor of sustainable development for Master students, doctoral students and junior scientists. By 2020, at least 10 students of the Vietnamese partner institutions have received a degree⁶. Among others, three Summer Schools in Hanoi and Rostock as well as a workshop in Hanoi are to be organised. Bilateral and regular doctoral projects can also be conducted at the Graduate School.

The project also offers numerous opportunities to carry out shorter and longer research stays or entire doctoral projects in Rostock. On the other hand, young German researchers can take advantage of the opportunity to spend one or more months researching in Hanoi.

Special attention is paid to career development for talented students, especially women. They receive support in drawing up individual career development plans right up to postdocs.⁷

2.4.3 GRADUATE SCHOOL “GERMAN-ETHIOPIAN GRADUATE SCHOOL: CLIMATE CHANGE EFFECTS ON FOOD SECURITY” (CLIFOOD)

The SDG Graduate School “Climate Change Effects on Food Security” (CLIFOOD) is a partnership between the University of Hohenheim and the Ethiopian Hawassa University. It targets junior scientists from Ethiopia and other African countries who want to conduct research on food security, poverty reduction and environmental and climate protection.

The project aims to combine teaching and research with capacity building. A doctoral programme, which allows junior scientists to further develop their research skills, thus is at the centre of the Graduate School. The doctoral programme is implemented at both partner universities. In addition, qualification courses for doctoral students and postdocs are offered at both the German and Ethiopian partner university. These aim to further develop the students’ and researchers’ soft skills (e.g. training in methodology, intercultural training). A total of 12 PhD and two postdoctoral fellowships are to be awarded

within the project. Building on the expertise of the partner universities, the Graduate School organises six block seminars aimed at knowledge transfer, networking and qualification of doctoral students. Academic exchanges, including field research stays in Ethiopia, are part of the qualification courses, as well as participation in international conferences, workshops and seminars. The range of seminars is supplemented by media training, in which interested scientists of the Graduate School can build up competences on the digitalisation of knowledge transfer.

CLIFOOD focuses on the promotion of South-South cooperation and therefore implements a majority of the block seminars in Ethiopia. Thematically relevant actors are actively involved in the project in order to establish networks, facilitate transnational cooperation and promote cooperation between higher education institutions in East Africa.⁸

2.4.4 GRADUATE SCHOOL “YAOUNDÉ – BIELEFELD BILATERAL GRADUATE SCHOOL NATURAL PRODUCTS WITH ANTIPARASITE AND ANTIBACTERIAL ACTIVITY” (YABINAPA)

The Graduate School “Natural Products with Antiparasite and Antibacterial Activity” (YaBiNaPa) is a joint initiative of the Université de Yaoundé I and the University of Bielefeld with the aim of advancing the development of drugs made from medicinal plants. In Cameroon’s tropical climate, parasitic and bacterial diseases pose a major challenge. Active substances from

medicinal plants and natural substances, which could possibly stop the diseases and would be more affordable compared to synthetic drugs, must be further developed and analysed. The successful use of traditional medicinal plants as part of a sustainable strategy to improve public health could make an important contribution to Cameroon’s economic development.

6 The number has been adjusted during project implementation. In the original planning document it was foreseen that by 2020, at least 13 Master’s degrees and 6 doctoral degrees should have been awarded to students.

7 Cf. DAAD (2018): Z 57315854. Universität Rostock. Bonn: DAAD.

8 Cf. DAAD (2018): Z 57316245. Universität Hohenheim. Bonn: DAAD.

YaBiNaPa aims to promote research on alternative medicines to combat tropical diseases. To this end, positive effects are to be achieved in three dimensions: 1) Higher education for graduates is to be improved and to be oriented towards interdisciplinarity, 2) sustainability research is to be promoted and 3) the quality of life is to be improved by affordable drugs for the treatment of tropical diseases. To achieve this, young scientists receive high-quality training in the field of ethnobotany and phytochemistry. Using modern information technologies, both subject-specific and soft skills (e.g. teamwork, languages, management, communication) are taught.

Within the framework of the project, 20 international doctoral students and one junior scientist receive scholarships. In addition, five doctoral students from other universities in Cameroon and five doctoral students from other African countries are offered the opportunity to spend six months at the Université de Yaoundé. Research stays in Germany are furthermore financed for two scientists, one postdoc and a total of three PhD students.

The Graduate School attaches great importance to an interdisciplinary approach to teaching and research. YaBiNaPa therefore trains students on an interdisciplinary basis and sets up a national scientific communication platform for biologists, chemists, pharmacists and alternative practitioners. New concepts, methods and approaches are presented in seminars, conferences, workshops and lectures.⁹

2.4.5 GRADUATE SCHOOL “WITS-TUB URBAN LAB INTERDISCIPLINARY BILATERAL POSTGRADUATE STUDIES PROGRAMME FOR SUB-SAHARAN AFRICA”

The “Wits-TUB Urban Lab Interdisciplinary Bilateral Postgraduate Studies Programme for Sub-Saharan Africa”, in short Wits-TUB Urban Lab, is a cooperation between the Technische Universität Berlin (TUB) and the University of the Witwatersrand in South Africa. The Graduate School is dedicated to questions of sustainable urban planning and development (SDG 11). The constellation of a rapidly growing population, rural-urban migration, increasing air pollution and congested roads pose numerous challenges for the implementation of SDG in the sub-Saharan region.

To prepare for these challenges, students and junior scientists should receive first-class education in the field of urbanisation and urban planning through study and capacity building programmes. By 2019, four new teaching modules and a new Master’s programme in Urban Management (based on a TUB programme) are thus being introduced at the University of the Witwatersrand. The semi-structured doctoral programme is also being renewed and adapted in light of the United Na-

tions’ 2030 Agenda. In addition to the revision of the curriculum, bilateral exchange formats, workshops and conferences as well as summer schools are held in South Africa and Germany. All formats focus on four areas of innovation, which in their entirety, aim at the achievement of the SDG in urban areas and correspond to the four teaching modules introduced: 1) integrated approaches to the implementation of the SDG, 2) tools for implementation, 3) understanding the political context of urbanisation, 4) practice-oriented teaching approaches. In order to expand their competences, the junior faculty at the University of the Witwatersrand receives mentoring and training on innovative teaching methods.¹⁰

The Wits-TUB Urban Lab supports 54 Master students and seven doctoral students. Within the framework of North-South and South-South exchanges, employees and doctoral students of the universities can gain insights into the respective partner universities.¹¹

2.4.6 GRADUATE SCHOOL “DOCTORAL STUDIES SUPPORT PROGRAM (DSSP) ON ENVIRONMENTAL PEACE-BUILDING AND DEVELOPMENT IN COLOMBIA”

The Graduate School “Doctoral Studies Support Program on Environmental Peace Building and Development in Colombia” is a partnership between the Instituto de Estudios Ambientales (IDEA) Universidad Nacional de Colombia and the Center for Development Research (ZEF) at the University of Bonn. The Graduate School examines the links between raw materials,

governance and conflict in Colombia. After the 50-year civil war in Colombia, a peace agreement was reached with the FARC rebels in 2016. Implementation of the agreement is only realistic if territorial rights and the use of natural resources are fairly distributed among social groups without conflict. The Graduate School’s mission is to understand the relationship

9 Cf. DAAD (2018): Z 57316173. Universität Bielefeld. Bonn: DAAD.

10 Cf. DAAD (2018): Z 57316204. Technische Universität Berlin. Bonn: DAAD.

11 The number of Master scholarships has been adjusted from the initially foreseen 56 to now 54 due to budgetary reallocations.

between land rights, the environment and peace in order to find solutions to tensions.

In order to live up to this claim, the bilateral Graduate School pursues four main objectives: 1) the introduction of interdisciplinary and innovative scientific approaches, concepts and methods for dealing with the issues of environment, raw materials and conflict, 2) the development of a research agenda geared towards the SGD, 3) the internationalisation of science and the promotion of comparative analysis of conflicts concerning the management of raw materials, 4) the critical examination of and reflection on the role of higher education in the 2030 Agenda.

As part of the Graduate School, a new doctoral programme on Environmental Peacebuilding and Development was established. In 2018, the first six fellowships were awarded to Colombian doctoral candidates; in each of the following years 2019

and 2020 another six fellowships are to be awarded. Two PhD students from the Universidad Nacional Autónoma de Managua in Nicaragua who were selected in 2016 to participate in the Cuban-German School for Interdisciplinary Development Studies are being awarded a scholarship from the Graduate School to continue their work at ZEF¹². Three-month writing fellowships at ZEF in Bonn allow postdoctoral fellows to gain international experience and work on publications and research proposals. PhD students can also complete research stays at ZEF. Further funds are available to allow research fellows from the region to spend six months researching in Colombia.

Among the special features of the project are a digital research database, in which the research data of the scholarship holders and Master students of the partner university are made available in edited form, as well as a digital platform, which should facilitate conflict parties in the Observatorio de Conflictos Ambientales finding conflict solutions.¹³

2.4.7 GRADUATE SCHOOL “POSTGRADUATE PROGRAM ON SUSTAINABLE DEVELOPMENT AND SOCIAL INEQUALITIES IN THE ANDEAN REGION” (TRANDES)

The Pontificia Universidad Católica del Perú (PUCP) and the Freie Universität Berlin (FUB) have established the SDG Graduate School “Sustainable Development and Social Inequalities” in Lima. The Graduate School investigates interdependent and multidimensional inequalities in the Andean region and seeks solutions to reduce them. The reduction of economic, political, social, and socio-economic inequalities is of central importance in Latin America and especially in the Andean region, which is characterized by extreme inequalities. Hence, in order to achieve sustainable development in the sense of the SDG, the institutional, technical and human capacities of the Andean region must be expanded.

trAndeS set up a Graduate School at the partner university PUCP in Lima, where qualified Master and doctoral students are trained on the complex relationships between social inequalities and the possibilities of sustainable development. 10 Master and 5 PhD students of trAndeS receive two and four years (respectively) of funding. Students of the programme trAndeS are required to participate in mandatory and supplementary courses specific to trAndeS. This supplementary

course represents a further educational component that aims to impart soft skills and training in the field of methodology. In addition, different theoretical approaches and practice-oriented knowledge are transmitted.

Parallel to the training, research capacities with regard to the SDG are to be expanded at the FU Berlin and the PUCP. To this end, the scholarship holders align their Master’s and PhD theses with the research focus of the Graduate School. In addition, participating scientists should work on SDG-relevant research projects that are prepared and submitted within the framework of trAndeS. In addition, the funding of post-doctoral researchers is intended to lead to publications on corresponding research content. Moreover, a series of workshops, conferences and lectures are organised within the context of trAndeS. During these events, students can present their research and discuss it with experts from science, politics, business and international cooperation. The administrative staff of the PUCP is trained in sustainable management and project administration.¹⁴

12 As mentioned above, the originally initiated Graduate School with the Universidad Central “Marta Abreu” de Las Villas was cancelled by the Cuban side, whereupon the University of Bonn found a partner in the Universidad Nacional de Colombia for the reestablishment of an SDG Graduate School in Latin America.

13 Cf. DAAD (2018): Z 57316185. Universität Bonn: DAAD.

14 Cf. DAAD (2018): Z 57316100. Freie Universität Berlin. Bonn: DAAD.

3

Evaluation design

Evaluation of programmes intending to build capacities at institutional level in the higher education sector face methodological challenges, as rigorous evaluation designs that include a comparison or control group are often not feasible. In the case of the SDG-GS programme, for example, it is not possible to establish a convincing comparison or control group, since the projects establish Graduate Schools that are unique in their approach. In addition, the focus of the mid-term evaluation is not only the analysis of causal effects between output and outcome. The mid-term evaluation should also explain “how” and “why” certain changes have (not) taken place so far. For these reasons, a contribution analysis in combination with Peter Morgan’s 5C model was chosen for this mid-term evaluation.

Contribution analysis is an analytical approach to assessing the impact of projects, programmes and policies at the outcome and impact levels. This approach was developed by John Mayne for situations in which the use of experimental designs – as in the case of the SDG Graduate Schools – is not possible. Contribution analysis aims to measure the contribution of a policy, a project or, as in this case, the SDG-GS programme, and analyses the extent to which the observed effects (positive and negative) can be attributed to the programme.¹⁵

Contribution analysis is therefore an alternative approach to a traditional positivist thinking, which allows causality and impact to be demonstrated only through experimental or quasi-experimental evaluation designs. Contribution analysis does not attempt to prove that a factor – the programme, in this case - has caused the desired effect, but rather investigates to what extent the programme has contributed to the observed effects and changes. The contribution analysis is based on the Theory of Change developed by the DAAD for the SDG-GS programme (see Chapter 2.2).

In order to test this ToC, data from various sources (interviews, online surveys, on-site visits both in Germany and abroad, etc.) were collected to feed into the contribution analysis in order to trace a credible performance story. This approach is used to assess whether the programme, possibly in combination with other factors, has brought about the intended changes at outcome level or not. The contribution analysis places an additional emphasis on the identification of alternative explanatory patterns for the observed effects, such as the influence of other programmes or changes in the higher education landscape. Contribution analysis thus has the explicit task of identifying the most likely alternative explanatory patterns for the observed effects and discussing and, if necessary, disproving them based on the collected data. This ensures that the observed effects can be linked to the programme and not to alternative explanatory patterns. In addition, the interaction of contextual factors with the programme must be explicitly addressed in the contribution analysis.

When carrying out the contribution analysis, the heterogeneity of the SDG Graduate Schools and the implementation status of the individual projects were taken into account. The challenge in this regard was to generate data for the programme level that can be aggregated across all SDG Graduate Schools. To meet this challenge, we have analysed the capacity development in the partner universities using Peter Morgan’s 5C model. The **Peter Morgan 5C model** is a holistic methodology for the systemic analysis of organisations. It is particularly suitable for analysing organisations and organisational structures with a multi-actor constellation, as is the case with the DAAD Graduate Schools. According to the 5C model, organisations should have the following five capabilities in order to function and be effective. Capabilities are defined by Peter Morgan as the collective capabilities of groups or systems to effect change within or outside a system.¹⁶

- “The **capability to act and commit** is fundamental for an organization to have volition, to choose between options, exert influence and to change and develop based on strategic intent.
- The **capability to relate** to other actors within the context in which a system functions is seen as imperative. To gain support and protection, form informal alliances and/or formal partnerships affects the legitimacy of the organization and thus how effectively it can pursue its mandate.
- The **capability to adapt and self-renew** affects the ability of an organization or system to change and adapt to external or internal developments, new ideas and ultimately to learn.
- The **ability to achieve coherence** relates to a central tension in all human systems, between the need to differentiate and diversify and the need to maintain a common strategic focus.
- The **capability to deliver on program objectives** is to a high degree equated with effective performance management in the form of better service delivery; e.g. organization-specific outputs and outcomes.”¹⁷

According to Morgan, the five capabilities can be considered separately, but must be analysed as interdependent variables. They form a theoretical reference point with which capacities can be examined holistically in the SDG Graduate Schools. At the same time, they clarify which capacities and activities are needed to achieve the intended outputs and outcomes of the programme theory. The 5C model thus forms a reference point in which the development of capacities of the SDG graduate colleges can be made visible. For this purpose, a before-and-

15 Cf. Mayne, J. (2001): Addressing attribution through contribution analysis: using performance measures sensibly. *Canadian Journal of Programme Evaluation*, 16, 1–24.

16 Cf. Ibid.

17 Cf. Ibid

after survey was prepared, which was completed by project coordinators and selected faculty members and administrative staff of the four Graduate Schools which were subject to an on-site visit abroad.

The use of the 5C model in this interim evaluation therefore enabled a comparative examination of the individual projects, which allows statements to be made at programme level. While the figure above illustrates how capacity development and the Theory of Change (and the impact hypotheses therein) are related, it is explained in the following how they were applied to this mid-term evaluation. The model had to be designed in a way that makes it possible to account for the heterogeneity of the individual projects (e.g. different starting situations, influence and context factors). In a joint workshop with the DAAD, an “ideal” model of an SDG Graduate School was developed for this purpose. By developing the “ideal” model at the programme level, it could be assessed in the course of the evaluation to what extent the projects intended to develop capacities defined in this model (1) and managed to

do so (2). The model also allows the baseline to be determined for the institutional capacities of the partner universities at project start.¹⁸

Methods of data collection for this evaluation included document analysis, interviews during on-site visits to all German partner universities and four partner universities abroad, as well as an online survey of scholarship recipients. All site visits of the four projects subject to an in-depth analysis were conducted by an evaluator from Syspons and a professor as thematic expert in the respective academic discipline of the project. By request of DAAD, the on-site visits abroad were accompanied by a member of the DAAD programme team or evaluation team to contribute thematic expertise and learn about the evaluation practice of the contractor. For this reason, it cannot be excluded that the responses of interview partners were influenced by the presence of DAAD representatives. The evaluation team, however, had the right to conduct interviews alone at any time if deemed necessary. Evaluation results were subject to data, researcher and method triangulation.

¹⁸ It is important to take into account, that the capacities defined in the ideal model went beyond the requirements described in the call for proposals of the programme.

4

Evaluation results

4.1 RELEVANCE

4.2 EFFECTIVENESS

4.3 PROJECTED IMPACTS

4.4 EFFICIENCY

4.5 SUSTAINABILITY

4.6 COORDINATION, COMPLEMENTARITY AND
COHERENCE

4.7 CROSS-CUTTING THEMES

4.1 RELEVANCE

The criterion relevance assesses the extent to which the objectives of the programme are relevant with regard to international development agendas, the priorities and policies of the funding ministry BMZ, and to what extent corresponds to the needs in the partner countries. It further examines the extent to which the programme addresses the needs of the participating universities and the scholarship recipients. The underlying question is whether the programme sets the right priorities. To examine the programme's relevance, the evaluation team carried out a document analysis of selected international development agendas and BMZ strategies to assess whether the programme's objectives correspond to priorities defined by the development community. With regard to in-

ternational agendas, the focus of the analysis was put on the 2030 Agenda and the Sustainable Development Goals as the namesake of the programme. In addition, document analysis was used to examine to what extent the projects funded within the programme explicitly address the relevance of the themes on which research is conducted and for which teaching is strengthened in their proposals. The relevance for partner countries and partner universities as well as for individual beneficiaries (both scholarship recipients and other academics involved) was investigated through interviews in the on-site visits to the projects. Finally, the perspective of scholarship holders was also taken into account via the online survey.

4.1.1 RELEVANCE WITH REGARD TO INTERNATIONAL DEVELOPMENT AGENDAS

The programme's aspiration to be relevant to today's most prominent overarching international development agenda, the 2030 Agenda, already becomes apparent through the reference to the Sustainable Development Goals in the name of the programme. Moreover, the description of the Theory of Change in the funding proposal towards BMZ posits that "the programme shall contribute to sustainable development in the sense of the 2030 Agenda through the promotion of

capable and internationally-minded universities." The underlying rationale is that the establishment of bilateral graduate schools with a thematic focus related to the SDG shall strengthen the quality and relevance of teaching and research at the partner universities. Thereby, the training of specialized personnel, leaders and future professors shall enable these individuals to tackle development challenges.

What are the SDG?

"The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the **17 Sustainable Development Goals (SDG)**, which are an urgent call for action by all countries – developed and developing – in a global partnership. They

recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests."

Source: <https://sustainabledevelopment.un.org/sdgs>

Notwithstanding the aspiration to address SDG in the respective foci of the different graduate schools, the programme's overarching focus on the promotion of higher education and North-South cooperation in the realm of science, technology and education is in line with the SDG:

With its aspiration to train, amongst others, future professors, the programme indirectly contributes to render access to higher education possible in the context of a massive growth in the student population in emerging and developing countries.

Goal 4 of the SDG is quality education: ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. While this goal puts a strong emphasis on primary education, it also includes two targets addressing the need to foster higher education:

- **Target 4.3:** "By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university".

- **Target 4.B:** "By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing states and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries".

The programme grants scholarships to individuals from developing countries, including for enrolment in higher education in other developing countries (e.g. South-South scholarships granted in the RoHan project, and scholarships for students from Sub-Sahara Africa in the WITS-TUB project).

Goal 17 of the SDG is partnership for the goals: strengthen the means of implementation and revitalize the global partnership for global development. It includes two targets that can be directly linked to the objectives of the programme:

- **Target 17.6:** “Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism”.

The programme fosters North-South and South-South international cooperation in sciences and promotes the use of ICT within its partnerships.

- **Target 17.9:** “Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation”.

The programme’s call to establish graduate school with a focus on the SDG directly promotes capacity development in developing countries in view of implementing the SDG through international cooperation.

Regarding the objective of establishing graduate schools with a thematic focus on the SDG, an analysis of the project proposals and the websites of the graduate schools shows that all projects refer to the SDG. In the call for proposal of the programme, the reference to main SDG topics was mandatory. At the same time, only few of the graduate schools spell out which SDG their work specifically addresses in their external communication. Yet, in the interviews conducted with the project stakeholders, and from the perspective of the thematic experts accompanying the evaluation, all graduate schools can be linked to specific SDG. Figure 2 gives an overview of which graduate schools can be linked to which SDG, differentiating between links established by the respective school itself in its project proposal or on its website, and links seen by the evaluation team. It shows that some projects do not link their work to a specific SDG in either their project proposal or their website. The trAndeS project on the other hand links its work to all but two SDG based on the research agenda, without providing further explanation about how which goal is addressed.

Figure 2
Linkages between the projects and specific SDG

	RoHan	DSSP	trAndeS	CLIFOOD	Perform. Sustainab.	YaBiNaPA	Wits-TUB
 No Poverty			✓	✓			
 Zero Hunger			✓	✓			
 Good Health & Well Being			✓	✓			
 Quality Education	✓		✓	✓			
 Gender Equality	✓		✓				
 Clean Water & Sanitation	✓		✓				
 Affordable & Clean Energy	✓		✓				
 Decent Work & Growth	✓		✓				
 Industry, Innovation & Infrastructure	✓		✓				
 Reduced Inequalities			✓				
 Sustainable Cities							✓
 Responsible Consumption & Production			✓				
 Climate Action	✓		✓	✓			
 Life Below Water			✓				
 Life On Land			✓	✓			
 Peace, Justice & Strong Institutions							
 Partnerships for the Goals	✓		✓				

✓ according to project proposals/website

□ according to analysis of the evaluation team

Source: Syspons 2018/19

From the perspective of the evaluation team, not explicitly linking the work of the seven projects to specific SDG, or establishing a link without explaining it, constitutes a missed opportunity for two reasons. First, a clear articulation in external communication could contribute to encouraging stakeholders of the Graduate Schools to frame the relevance of their work for sustainable development. This is a mindset to encourage especially the scholarship recipients to make their work relevant for actors beyond their own discipline, thereby increasing their potential to act as change agents. Moreover, an intelligible linkage of each Graduate School to specific SDG would show the complementarity between the different projects. It could thereby constitute an effective tool for storytelling around the added value of the programme, beyond the general reference to the SDG. Given the holistic aspiration of the 2030 Agenda, a mere overarching reference to the SDG can sometimes have buzzword character, if not made more concrete by specifying what this means in a given context.

Several of the graduate schools establish a clear link between their work and the SDG and other international development agendas **in the curricula and teaching modules** they have developed. Thereby, they transmit knowledge on the SDG and specialized international development agendas (e.g. the New Urban Agenda) to the next generation of scholars. In addition, the graduate schools integrate the SDG in their calls for scholarships, making the funding for Master and PhD students contingent upon the commitment to conduct research on SDG-related subjects. The graduate schools thereby set the course for creation of new knowledge relevant for sustainable development. In addition, according to the interviews conducted with scholarship recipients, the articulation of the link between thematic foci of the graduate schools and the SDG also encourages students to communicate the relevance of their work to audiences beyond their own discipline. Both the scholarship recipients themselves and the thematic experts accompanying the evaluation view this as an essential skillset for (future) change agents.

4.1.2 RELEVANCE FOR BMZ AND POLICIES OF THE GERMAN GOVERNMENT

The programme's intended objectives and priorities are highly in line with the priorities defined in the strategy of the funding ministry, the German Federal Ministry for Economic Cooperation and Development (BMZ), for the education sector. The **BMZ education strategy**¹⁹ calls for increasing the quality and relevance of higher education in accordance to international quality standards. This is directly mirrored in one of the intended impacts defined in the programme's Theory of Change: "The programme contributes to increase the quality and relevance of teaching and research of the partner universities". The programme has further considered the Ministry's endeavour for higher education to take into account the needs of the labour market with the intention of the graduate schools working in networks with relevant employers from the public sector, the private sector and civil society (outcome 4). Moreover, the programme corresponds to the BMZ's intention to integrate social responsibility in higher education and to promote research relevant for development. Finally, it has also taken up the encouragement of the use of ICT in education (in outcome 2), which is both included in the BMZ education strategy and in its **digital agenda**²⁰.

There is thus a clear alignment between the priorities of the funding Ministry and the programme's objectives as defined in the Theory of Change. The extent to which these programme objectives have been taken up and achieved by the seven projects funded under the programme is addressed in the chapter on efficiency.

Beyond its alignment with thematic priorities of the BMZ, the programme is also in line with the **regional focus** on Africa defined in the Ministry's education strategy. The fact that four out of the seven funded projects are in Africa is the result of a quota defined jointly with BMZ. It was initially foreseen to fund six projects, out of which four were to be in Africa, and one in Latin America and Asia, respectively. Funding for an additional project in Latin America was subsequently allotted after negotiations with BMZ, raising the total number of projects to seven, with four of them in Africa as initially foreseen.

Looking at further policies of the German Federal Government, the programme is also in line with the **Strategy for the Internationalization of Education, Science and Research**²¹. This strategy of the German Federal Ministry of Education and Research (BMBF) calls for the internationalization of the German higher education system to ensure its competitiveness. It directly links Germany's international competitiveness to its ability to do its share to tackle global challenges. This in turn is linked to the necessity of an evolution of international cooperation which takes into account digitalization, increasing complexity and the imperative of sustainability. The strategy explicitly identifies **newly industrialized and developing countries as emerging players** and increasingly relevant partners for cooperation in a global knowledge society. It therefore calls for the **promotion of scientific standards worldwide** through cooperation. The commitment to international cooperation is stressed against the background of the global character of challenges such as climate change, education and food security. Therefore, the strategy pledges that the German Federal

19 BMZ (2015): BMZ Education Strategy: Creating equitable opportunities for quality education

20 BMZ (2017): Die digitale Revolution für nachhaltige Entwicklung nutzen. Die digitale Agenda des BMZ

21 BMBF (2017): Internationalisierungsstrategie Wissenschaft

Government will increase its efforts to **strengthen international networks** to bring down barriers to research on global challenges. The DAAD programme is well-aligned with these priorities, as it aims to structurally strengthen the teaching and research capacities of partners in the Global South and promotes international networking and the production of research outputs relevant to international development challenges. The three challenges listed in the BMBF strategy as examples for **challenges that defy borders** are all addressed by the graduate schools funded in the programme. Climate change and food security are the thematic foci of the German-Ethiopian SDG Graduate School CLIFOOD, whereas health is addressed by the Yaoundé - Bielefeld Bilateral Graduate School Natural Products with Antiparasite and Antibacterial Activity (YaBiNaPA).

Several interview partners have pointed out that the SDG bilateral programme is also relevant for an additional policy objective of the German Government in the area of Education, Science and Research: **establishing lasting relationships with future elites abroad**. While this is not an explicit objective of the programme, several individuals interviewed during the case studies abroad who were themselves DAAD alumni pointed out that contributing to the education of academically promising individuals in partner countries creates valuable bonds which shape Germany's image abroad. They argued that the scholarships provided by DAAD were both well-endowed and amongst the most prestigious scholarships available to the students of their university. Accordingly, DAAD alumni stressed the potential of the programme to contribute to fostering positive attitudes towards Germany amongst scholarship recipients.

The potential for academic cooperation to **create perspectives for populations affected by crises and conflict** is explicitly formulated in the BMBF strategy. Again, this is not explicitly taken up in the DAAD programme's objectives, but several interview partners argued that the project in Nigeria had an important role to play to offer perspectives in a region affected by Boko Haram, a terrorist organization condemning Western education. In a context in which the security situation leads to brain

drain and thereby weakens the academic sector, the project at the University of Maiduguri offers perspectives to students and professors by strengthening academic structures and offering them the possibility for international networking. It also entices students to enrol at the University of Maiduguri despite the looming security situation, because the project is built on a triangular cooperation model between Germany, Nigeria and Ghana that provides for Nigerian students finishing their studies at the Ghanaian partner university, should the situation in Maiduguri deteriorate.

Finally, when analysing the programme's relevance with regard to policies of the German Government, it bears mentioning that there is a **conflict of objectives** between one of the guiding themes of BMZ and one of the guiding themes of BMBF. While the leitmotif of the BMZ education strategy is **creating equitable opportunities**, the BMBF internationalization strategy strives for **academic excellence** through exchange and competition among the very best. Given the structural inequalities with regard to access to primary and secondary education in partner countries of German development cooperation, promoting equitable access to opportunities in higher education, e.g. by taking into account socio-economic criteria when awarding scholarships, can constitute a trade-off with the selection of the academically strongest candidates. In addition, scholarships awarded within the programme Bilateral SDG graduate schools are directly awarded through the participating universities, who are not only required by DAAD to establish a quality-based selection process, but who also have an intrinsic motivation to enrol the academically strongest students. Moreover, some of the universities in the Global South supported through this programme are internationally renowned institutions (e.g. University of Witwatersrand in South Africa and Pontificia Universidad Católica in Peru) and charge scholarship fees, which affects the socio-economic demographics of the pool of applicants to this programme. Against this background, some projects (e.g. WITS-TUB and YaBiNaPA) have chosen to purposefully allocate a quota of scholarships to students from the Global South from other countries or other universities than the main partner university to foster diversity.

4.1.3 RELEVANCE FOR PARTNER COUNTRIES

The programme is highly relevant to the partner countries at two levels. First, the thematic foci of the respective graduate schools largely correspond to areas relevant for the development of the partner countries. Second, strengthening the higher education system at (post)graduate level is a priority for the partner countries.

The relevance of the thematic focus of the different graduate schools for the partner countries or regions is clearly presented in the project proposals in a **sound context analysis**. In addition, the topics addressed by the graduate schools largely correspond to priority areas defined in **national development agen-**

das of the partner countries and /or **national implementation plans for the SDG**. For instance, the proposal by the WITS-TUB studies programme for Sub-Sahara Africa frames the need to address **urbanization** in light of **Africa** having the highest rates of urbanisation on the globe. The proposal explains that in spite of projections that half of the continent's inhabitants are expected to live in cities by 2035, governments lack appropriate urban policy responses. The need to create sustainable human settlements has also been recognized by South Africa's government, it is one of five strategic areas in the National Framework for Sustainable Development (RSA 2008²²).

22 https://www.environment.gov.za/sites/default/files/docs/2008nationalframeworkfor_sustainabledevelopment.pdf

Peacebuilding and reducing inequalities, which are addressed by the graduate schools in Colombia and Peru, respectively, are also convincingly presented as relevant for the local context in the project proposals and can be linked to priorities defined in national development agendas. In **Colombia, peacebuilding** is crucial in the aftermath of the longest internal conflict in the hemisphere, formally ended through the peace agreement between the government and guerrilla organizations in 2015. Accordingly, peace is one of the three pillars of Colombia's National Development Plan (GoC 2015²³). The proposal for the graduate school in **Peru** argues its thematic relevance in light of the substantial inequalities in the Andean region. While **reducing inequalities** is not an explicit objective of Peru's SDG implementation plan, it can be linked to the objective of eradicating poverty, which is the first goal defined therein (UN 2017²⁴).

The thematic focus of the graduate school in **Nigeria / Ghana** stands out from the other graduate schools, as it is the only project addressing development through **cultural sciences and humanities**. Against the backdrop of Boko Haram terrorism in the project region, the proposal argues that the arts have a crucial role to play in elaborating strategies to resolve conflict based on the analysis of local, regional and national cultural knowledge systems and challenges of ethnic groups. While the social dimension of Nigeria's Vision 20:2020 calls for a peaceful, harmonious and just society, no particular role is foreseen for cultural sciences and the humanities to achieve this (GoN 2009²⁵).

The two projects in the natural sciences, focussing on chemical catalysis in Vietnam and research on medicinal plants in Cameroon, are also highly relevant in their respective contexts. **Vietnam's** National Action Plan for the Implementation of the 2030 Agenda calls for science and technology to constitute a driver for sustainable development. The widespread use of modern technologies friendly towards the environment is particularly encouraged (GoV 2017²⁶). **Catalysis**, with its manifold applications ranging from the prevention of waste, to the reduction of pollution, to the use of renewables, fits this bill. Turning to **Cameroon**, while health is not a priority sector in the Government's vision 2035, the vision calls for human capacity development especially in medicine and the sciences (GoC 2009²⁷). The project proposal posits that strengthening scientific knowledge of researchers on natural products to **fight microbial and parasitic diseases** is important due to the dramatic health hazards these diseases (e.g. malaria) repre-

sent in tropical countries, where a large share of the population cannot afford synthetic drugs.

Finally, the project on **food security and climate change** in **Ethiopia** derives its relevance from the intrinsic link between food production, access to markets, and income from agricultural activities with climate related events and food security crises. This nexus strongly affects Ethiopia, where agriculture accounts for nearly half of the GDP, 80 % of employment, and 85 % of export earnings (according to the project proposal). As such, the thematic focus of the project is relevant to Ethiopia's Growth and Transformation Plan II, which aims for sustainable growth by enhancing the productivity of the agriculture and the manufacturing sectors (GoE 2016²⁸).

Beyond the thematic foci of the individual projects, **strengthening the higher education system** is a priority for most of the partner countries. During the last decades, many developing countries have seen a massive increase in the number of university students. For example, in Ethiopia, the number of university students has risen tenfold between 2000 and 2012 alone (DAAD 2016²⁹). In Cameroon, the number of enrolled students has more than doubled between 2011 and 2016 (DAAD 2017³⁰). At the same time, outside of the major emerging economies, tertiary education systems have not been able to follow up by ramping up the pool of qualified faculty. For instance, only 7.6 % of Ethiopian university lecturers have a PhD ((DAAD 2016³¹). Massification thus puts a strain on the **quality of teaching** in many developing countries. Moreover, in the past, many middle and low-income countries have been reluctant to support research, for example because other areas such as basic education and health required more attention (OECD 2010³²). As a result, higher education systems have traditionally focussed on education at the expense of **research**, thereby structurally weakening the competitiveness of developing countries in the knowledge economy. The SDG-GS programme's focus on strengthening (post)graduate education therefore corresponds both to the need to foster research in the partner countries, and to the need to increase the potential pool of qualified university lecturers in response to the massification of higher education.

Governments in the partner countries have recognized the need to structurally strengthen the higher education sector, making the SDG-GS programme's objectives highly relevant to **national priorities**. For instance, Vietnam's National Action Plan for the Implementation of the SDG calls for an increase

23 https://observatorioplanificacion.cepal.org/sites/default/files/plan/files/Colombia_Plan_Nacional_de_Desarrollo_2014_2018.pdf

24 https://www.un.org/sustainabledevelopment/wp-content/uploads/2017/07/Peru_Government.pdf

25 http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/nigeria/nigeria-vision-20-20-20.pdf

26 http://www.un.org.vn/en/publications/doc_details/543-the-national-action-plan-for-the-implementation-of-the-2030-sustainable-development-agenda.html

27 <http://cm.one.un.org/content/unct/cameroon/en/home/about/vision-2035.html>

28 <http://www.greengrowthknowledge.org/sites/default/files/downloads/policy-database/ETHIOPIA%29%20Growth%20and%20Transformation%20Plan%20II%2C%20Vol%20I.%20%20%282015%2C16-2019%2C20%29.pdf>

29 DAAD Bildungssystemanalyse 2016

30 DAAD Sachstand Kamerun

31 DAAD Bildungssystemanalyse 2016

32 <http://www.oecd.org/site/eduimheto/45925685.pdf>

in the quality of tertiary education with a focus on addressing the needs of the labour market. (GoV 2017³³). In the same vein, Cameroon's Vision 2035 vows to improve the efficiency of the university system (GoC 2009³⁴). In Peru, the National Council on Science, Technology and Technological Innovation (CON-CYTEC) stresses the necessity to recruit academics with a PhD

to speed up scientific production and increase international competitiveness, and the new university law shall buttress research (DAAD 2017³⁵). South Africa's Green Paper for Post School Education and Training aims at increasing the mobility of university students and scientists and at intensifying international research cooperation (DAAD 2016³⁶).

OBSERVATIONS ON THE CONCEPT GRADUATE SCHOOL

Each project individually defined the measures it deemed relevant to contribute to the programme's objectives for the region, discipline and institutions involved. DAAD specifies which type of measures can be funded, and projects have significant flexibility to tailor their project to the context. The common denominator between the projects is thematic work on an SDG-related subject and the establishment of a graduate school. Regarding the latter, it is worth noting that the term graduate school and its German translations have slightly different connotations. The use of the term has not been defined by the programme, which gives the projects leeway in its interpretation. The German word *Graduiertenkolleg*, used in the programme documents, usually refers to a small study programme exclusively for PhD students, which is often interdisciplinary, and always restricted to clearly specified research subjects within an overarching research framework. In contrast, the German word *Graduiertenschule* *refers to a structured teaching offer to all qualified PhD students (e.g. within a faculty or a university) to acquire academic soft skills such as presentation techniques, didactics, publication strategies, project management or fundraising. It is not linked to an explicit thematic focus. Neither of the two German expressions exactly translates the use of the term graduate school in Anglo-Saxon higher education

systems. There, the term usually refers to all thematic and cross-cutting teaching offers and organisational structures for both PhD and Master students within a university or a faculty. The SDG-GS programme's call for projects explicitly allowed for support to both Master and PhD students under a specific thematic focus, which represents a mix of the German and Anglo-Saxon concepts.

While all projects have implemented this differently (e.g. some focussing more on the education of Master students, others more on PhD students, and some catering to both), the measures implemented in the RoHan catalysis project in Vietnam set this project apart and raise the question whether this project constitutes a graduate school in either sense of the term. While the RoHan project funds a limited number of long-term scholarships for Master and PhD students and organizes summer schools, the project has a clear focus on short-term scholarships for Vietnamese students and scholars to train in Germany. The intention is to form a critical mass of individuals in the use of state-of-the-art infrastructure, so that they may bring this knowledge back to Vietnam. Substantial investments have been made in scientific equipment at the two partner universities abroad so that the newly applied competencies can be put to use there.

* The term *Graduiertenschule* has gained traction with the introduction of the initiative for excellence within the German higher education sector (Exzellenzinitiative).

33 http://www.un.org.vn/en/publications/doc_details/543-the-national-action-plan-for-the-implementation-of-the-2030-sustainable-development-agenda.html

34 <http://cm.one.un.org/content/unct/cameroon/en/home/about/vision-2035.html>

35 Peru Bildungssystemanalyse

36 Bildungssystemanalyse Südafrika

4.1.4 RELEVANCE FOR PARTNER UNIVERSITIES

The analysis of relevance for the partner universities will focus on the partner universities abroad, as it is mainly these the programme seeks to strengthen. At the same time, the analysis cannot forego the motivation of German partner universities to engage in partnerships, as their motivation is key to the quality of the cooperation, and ultimately, results of the programme.

While all partner universities abroad share the endeavour to strengthen (post)graduate education and research, they are **highly heterogeneous institutions** with different aspirations in terms of capacity development. They include universities in the lead of national higher education rankings (Pontificia Universidad Católica in Peru) and internationally renowned universities represented in the top 250 of the Times Higher Education World University ranking (University of the Witwatersrand in South Africa). While most partner universities are public, this is not the case for all. The Universidad Católica in Peru for example is a private university. Despite the differences in their profiles, all partner universities stress their endeavour to bolster their (post)graduate programmes to ensure their competitiveness. Aspirations vary depending on where the respective university or department stood at the outset of the cooperation, yet the **relevance** of what is being offered within each project has been warranted **through joint elaboration of the proposals** between German universities and their partners abroad.

The heterogeneous needs of the partner institutions are not only characterized by the differences between these universities, but also by **heterogeneous needs of the different academic disciplines** supported in the SDG-GS programme. For instance, buttressing research capacities in the natural sciences tends to require more investments in **scientific equipment** than is the case for social sciences. Both the project on chemical catalysis in Vietnam and the project doing research on medicinal plants in Cameroon have addressed this need through substantial investments in lab equipment. Moreover, depending on the academic discipline, the **degree to which teaching and research are intertwined differs**. This means that the needs for curriculum development and didactic training vary depending on the characteristics of (post)graduate education in the given discipline. For instance, a PhD in chemistry (one component of the YaBiNaPA project in Cameroon and the RoHan project in Vietnam) requires much less coursework than a Master's in architecture (one component of the WITS-TUB cooperation in South Africa). Against this backdrop, the possibility to come up with a **capacity development approach tailor-made to the respective context** makes the programme highly relevant to the partner universities.

Making (post)graduate education attractive to students on the other hand is a **shared concern** of all partner universities regardless of the discipline. Even the prestigious partner universities in emerging economies are confronted with limited applications of national students to graduate school (archi-

ture at the University of the Witwatersrand in South Africa), or with an alarming share of students abandoning their studies before graduation (Pontificia Universidad Católica in Peru). In both cases, this is due to economic pressure to earn a livelihood, with adverse effects on the track record for the universities' graduate education. Beyond the attractiveness of the **scholarships** offered by the SDG-GS programme for the individual beneficiaries, the scholarships are therefore highly appreciated by the partner institutions, as they render their graduate study programmes more attractive. Scholarship funding, in conjunction with **networking opportunities**, enables their students to successfully complete their degrees in a timely manner. The international cooperation gives students and participating scholars an edge in producing quality **research output**, with increased opportunity for publications in **international journals**. As this is beneficial for the standing of the partner universities, the relevance of **individual and institutional capacity development is closely intertwined**.

In terms of the potential for institutional capacity development, the SDG-GS **programme stands out** both among DAAD programmes and programmes of other development partners due to the **duration and volume of funding** for the projects. With a funding agreement for five years, and the potential possibility to apply for an extension of funding for another five years, the programme offers a medium-term perspective for institutional capacity development which is quite rare. This, in conjunction with the possibility to come up with a tailor-made capacity development approach, makes the programme highly relevant. In this regard, partner universities from the Global South have stressed the **quality of the partnerships** with their German counterparts. In terms of determining the thematic foci and the type of measures funded within a given project, the partner universities perceive the projects to be partnerships on equal footing. Engagement in these ambitious partnerships represents a significant amount of work and requires give and take on both sides. The interviews with the German partner universities have made it clear that an endeavour to contribute to development in the partner countries may contribute to the motivation to engage in these partnerships, but that an added value for the German side also needs to be given.

Depending on the profile of the university and the academic discipline, the **relevance for the German partner university** may lie in increasing internationalization (University of Rostock and University of Hildesheim in particular), in enabling German scholars to conduct research on thematic issues relevant to their interests (e.g. tropical plants), or in cooperating with internationally renowned scholars (e.g. African scholars in the field of urbanization associated with the University of the Witwatersrand in South Africa). In this regard, some German interview partners have pointed out that the framing of the SDG-GS programme suggests a knowledge transfer from North to South, but that they felt they had as much to learn from their counterparts abroad than the other way around. For instance, according to the project team at TU Berlin, the

PhD training offer for architects at the University of the Witwatersrand is more structured than it is at the German partner university. Another example cited for **South-North knowl-**

edge transfer is community outreach, where the partners in South Africa and Ethiopia have more experience than their German counterparts.

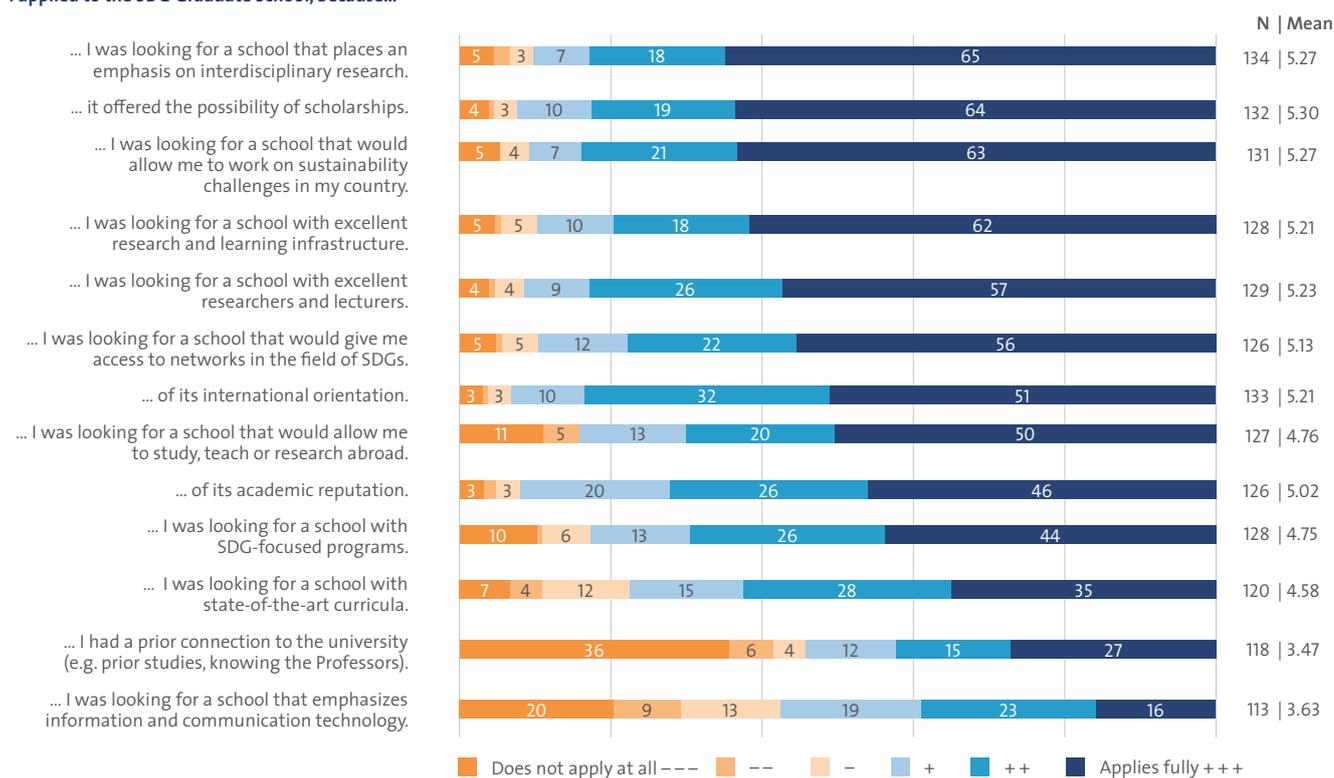
4.1.5 RELEVANCE FOR INDIVIDUAL BENEFICIARIES

The main individual beneficiaries of the programme are **Master, PhD and Post-Doc students** who receive scholarships for their studies and / or to carry out research, and / or who receive mobility funding for participation in summer schools, conferences and other networking activities. Depending on the project, scholarships may range from short-term funding for three months or more, to scholarships providing funding for the entire duration of the studies. Several projects grant both short and long-term scholarships. Given the endeavour to contribute to organizational capacity development for the partner universities abroad, the scholarships primarily support studies in the partner countries. However, some scholarships include a short stay at the German partner university, and a limited number of scholarships solely entail studies in Germany. In addition to the Master, PhD and Post-Doc students, individual beneficiaries also include **scholars from the partner universities and their wider network** who receive mobility funding for guest lecturing as well as participation in summer school, conferences and other networking activities.

The results of the online survey of **scholarship recipients** show that the reasons to apply to the SDG graduate schools are manifold (see figure 3). The relevance of participation in the programme lies in the **opportunity to conduct interdisciplinary research**, in **receiving funding** for a scholarship, and in having the possibility to study and conduct research with **access to quality infrastructure** and **excellent professors**. The **international orientation** of the programme and, to a lesser extent, the opportunity to study or research abroad also contribute to the appeal of the graduate schools. This is corroborated by the interviews conducted during the on-site visits to the projects, in which the scholarship recipients characterized the programme as **highly relevant** for their academic and professional trajectory.

Figure 3
Motivation for applying to the SDG Graduate Schools (in %)

I applied to the SDG Graduate School, because...



In the interviews, obtaining financing for their studies emerged as essential for the scholarship recipients, because few funding opportunities for (post)graduate studies are available at the partner universities abroad. The SDG-GS scholarships were however also explicitly described as **more attractive than other scholarships** for several reasons. First, in contrast to many other scholarships, participation in the SDG-GS programme not only finances the studies, but also **complementary measures** such as mobility, or funding for a university laptop (depending on the project). Second, the scholarship is tied to studies at the SDG Graduate Schools, and students described the **quality of academic support** they received as excellent. They emphasized that the professors teaching at the graduate schools were at the top of their respective field, and that these supervisors were very present, especially for the PhD students. Many scholarship recipients estimated that the combination of having their studies financed and benefitting from above average academic support will enable them to finish their degree faster than would otherwise have been the case. At the same time, some scholarship recipients also expressed feeling a considerable amount of pressure to finish their degree with the timeframe of the scholarship, which they described as a very ambitious timeframe.

Beyond the financial and academic support, participation in the programme's various activities helped students establish an **international network** with academics highly recognized within their field. This in turn opened doors for publication in international journals, which improves prospects for those students interested in pursuing an academic career. For those students who had the occasion to spend time at the German partner institutions in the two projects in the natural sciences, access to state-of-the-art infrastructure in Germany proved a significant push for their research competencies. Lastly, students highlighted the **signal effect of the scholarship**. Receiving a DAAD scholarship is considered prestigious in many partner countries, and students deem this as an added value for their CV. Additionally, for students who got to spend time abroad, this was also valued as a cultural experience and seen as an added value for their CV. The latter aspect was particularly emphasized by Vietnamese participants of the RoHan project who got the opportunity to conduct research at the LIKAT in Rostock, as this is one of the leading research institutes worldwide in the field of catalysis.

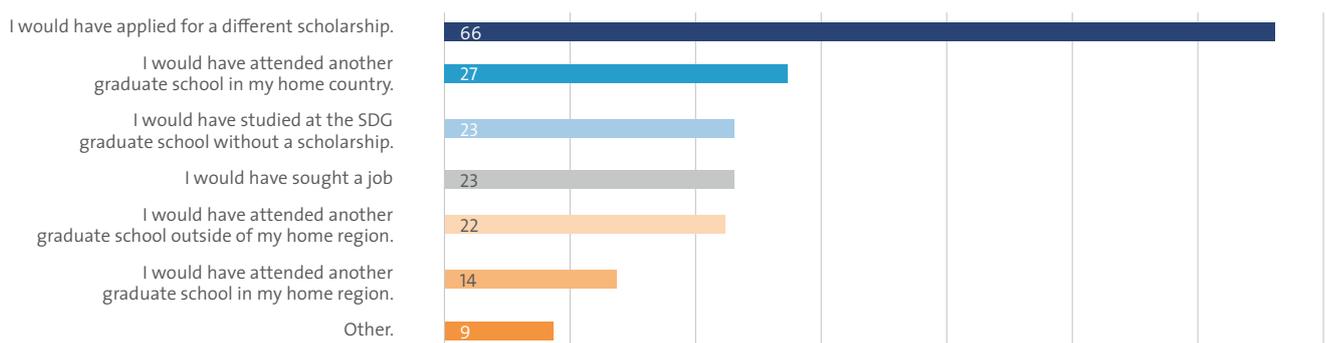
While the possibility to work on **issues related to sustainable development** is also cited as a motivation to apply to the programme in the online survey, the interviews conducted revealed that many scholarship recipients only started reflecting on the SDG in depth after admission to the programme. The fact that the programme encourages them to frame their research interests in light of the SDG is viewed as highly relevant by the students, as it enables them to articulate the relevance of their work to audiences beyond their own academic discipline.

Even though having a prior connection to the university was not one of the main factors for applying to the graduate schools (see figure 4), the case studies showed that most scholarship recipients did have such a prior connection. Many had already done their undergraduate degree at the partner universities abroad. Those who had not previously studied there often knew professors there who had directed their attention to the call for scholarships.

The results of the online survey show that most scholarship recipients (66%) would have applied for another scholarship, had they not been accepted into the SDG-GS programme (see figure 4). About a quarter (27%) stated that they would have attended another graduate school in their home country, whereas 14% would have attended another graduate school outside of their home region. On the other hand, 23% would have sought a job. This is in line with statements made by scholarship recipients during the on-site visits, where many students said that the academic offer in combination with the financial support package was the decisive pull-factor for studying at the graduate school. While many interviewees said they would not have been able to finance their studies without the scholarship, this is not the case for all. According to the online survey, 23% would have studied at the SDG-GS without a scholarship. However, the discussions with students during the on-site visits also made clear that one of the advantages of the scholarship is to be able to fully focus on the studies, without having to work a job on the side.

Figure 4
Alternatives to studying at the SDG-GS for scholarship recipients (in %)

What would have been your alternatives if you had not received your scholarship to attend the SDG Graduate School?



4.1.6 ASSESSMENT OF RELEVANCE

The evaluation team assesses the programme's relevance positively. The SDG-GS programme is relevant for its namesake international development agenda, the 2030 Agenda. First, the overarching programme logic is relevant to SDG 4 (quality education) and SDG 17 (partnership for the goals). Second, the thematic focus of all projects funded within the programme can be linked to specific SDG. At the same time, there is room for improvement regarding explicit articulation of the link between each project and specific SDG in external communication in order to convey a more concrete message regarding the programme's relevance to the broader public.

The SDG-GS is also relevant in light of the priorities of the funding ministry, the BMZ. The BMZ education strategy calls for increasing the quality and relevance of higher education in partner countries in line with international quality standards. It further calls for addressing needs of the labour market and for incorporating ICT in education, all of which are addressed in the programme's Theory of Change. In addition, the programme's focus on funding projects in Africa is also in line with geographic priorities of the BMZ. The SDG-GS is also in line with priorities defined in the Strategy for the Internationalization of Education, Science and Research of the German Federal Ministry of Education and Research (BMBWF) which identifies newly industrialized and developing countries as emerging players and increasingly relevant partners for cooperation in a global knowledge society and thus calls for the promotion of scientific standards worldwide through cooperation.

Strengthening research and teaching at (post)graduate level is also a priority for the partner countries and partner universities of the programme. Many developing and emerging economies have experienced an exponential increase in the number of university students in the past decades, which constitutes a challenge for the quality of higher education as the number of qualified lecturers and the investments in infrastructure have often not gone up accordingly. In addition, many partner countries of German development cooperation have not prioritized investments in research, as other areas like basic education and health required more immediate attention. Yet, these countries are increasingly recognizing the need to strengthen their research capacities to fuel development. The SDG-GS programme

thus addresses a need in partner countries where projects are currently being implemented. At the same time, some of the universities abroad supported via the programme (the University of the Witwatersrand in South Africa and the Pontificia Universidad Católica in Peru) are very strong partners, where the development relevance of the projects lies in the topics addressed by the Graduate Schools and, for the Wits-TUB cooperation, in the support to scholarship recipients from Sub-Saharan Africa. Beyond the projects currently funded, the SDG programme is potentially also relevant for other countries of German development cooperation, as a lack of qualified lecturers and a focus on education at the expense of research is a phenomenon common in the higher education systems of developing countries.

Regarding relevance for the partner universities, a strength of the programme lies in its flexible bottom-up approach, in which participating universities from Germany and abroad jointly develop a tailor-made project design that addresses context-specific needs. This is particularly important given the heterogeneity of the universities supported, but also of the differences between the academic disciplines of the Graduate Schools. The evaluation has further shown that relevance of the programme for partner universities and for individual beneficiaries is closely intertwined, as making (post)graduate education attractive to students is a shared concern of all partner universities regardless of the discipline. This is achieved by offering scholarships to students. The combination of funding for their studies and high-quality study offers makes the programme highly relevant to scholarship recipients. Through the academic support and access to international networks with renowned scholars, students and researchers benefit from cross-pollination of ideas and get an edge in producing quality research output. This increases chances for publishing in international journals, which in turn is beneficial for the standing of the partner universities.

The international cooperation gives students and participating scholars an edge in producing quality **research output**, with increased opportunity for publications in international journals. As this is beneficial for the standing of the partner universities, the relevance of **individual and institutional capacity development is closely intertwined**.

4.2 EFFECTIVENESS

This chapter analyses the extent to which the programme has reached its intended objectives against the outcomes and impacts formulated in the Theory of Change. The analysis of effectiveness and projected impacts draws on monitoring data from project and programme reporting, on interviews conducted during the on-site visits, from the online survey of scholarship recipients, and from the appreciation of study offers by the thematic experts associated with the evaluation team.

Because a target value has only been defined for few of the outcome indicators defined towards BMZ, target values are not used as a benchmark against which effectiveness can

be measured. Instead, the evaluation uses aggregate quantitative information on the programme indicators as one data point which feeds into the qualitative assessment of effectiveness. For each outcome, the indicators defined towards BMZ are presented in a text box. Information on progress against these indicators is included in the narrative on the respective outcome.

Following the analysis of intended outcomes and impacts, this chapter also addresses unintended effects and findings on the programme's contribution to the development of the capacities of the partner institutions which are presented.

4.2.1 OUTCOME 1: QUALIFIED MASTER AND PHD STUDENTS HAVE BEEN TRAINED IN STUDY PROGRAMMES RELEVANT TO DEVELOPMENT

The first intended outcome of the SDG-GS programme is that qualified Master and PhD students have been trained in study programmes relevant to development.

So far, according to the project reports, a total of 208 scholarships (funding for 3 months or more) have been granted. These encompass scholarships for **53 students pursuing a Master's degree** and **115 students pursuing a PhD degree**. The remaining 40 scholarships have been granted for other types of studies, typically Postdocs. While the bulk of the qualification provided through the programme has thus gone towards PhD training, figure 5 reveals heterogeneity regarding the allocation of scholarships in the different projects. Some proj-

ects have trained more Master students than PhD students (Wits-TUB), and others have trained roughly the same number of Master and PhD students and a significant number of Postdocs (RoHan, trAndeS). The total number of scholarships granted so far within a project ranges from between 15 (DSSP) to 48 (YaBiNaPa). Most projects issue several scholarship calls to train different cohorts of students within the five-year funding period. Therefore, the number of scholarships within the programme is still going to rise. Most projects plan to focus on Master scholarships for the additional scholarships still to be awarded, as the remaining funding period does not allow the support of PhD studies from start to finish (partial PhD scholarships could however be granted).

Figure 5
Number of scholarships granted to date (2018)

	Master	PhD	Other	Total
RoHan Rostock / Vietnam	12	15	13	40
DSSP Bonn / Colombia	0	15	0	15
trAndes FU Berlin / Peru	6	6	23	35
CLIFOOD Hohenheim / Ethiopia	0	14	1	15
Performing Sustainability Hildesheim / Nigeria / Ghana	6	12	0	20
YaBiNaPa Bielefeld / Cameroon	0	45	3	48
Wits-TUB TU Berlin / South Africa	28	7	0	35
Total – All projects	53	115	40	208

Source: DAAD

In terms of **study progress**, the first 3 Master students have already been awarded their degree, and 6 more have already submitted their thesis. As figure 6 shows, the studies of most Master and PhD scholarship recipients are still ongoing. This is not surprising two and a half years into the programme, as the projects needed a few months to initiate the calls for scholarships and to complete the selection procedure be-

fore the first cohort could take up its studies. Moreover, most **graduate schools** needed a certain **ramp-up time to become visible to potential students**. In some projects, the number of applications to scholarships in the first year was smaller than the number of scholarships the project had intended to offer. However, the numbers of scholarship applications have risen year after year for all projects.

Figure 6
Study progress of Master and PhD students to date (2018)

		Master	PhD	Total
Studies initiated	Total	17	60	77
	Women	10	26	36
Studies advanced	Total	27	41	68
	Women	12	13	25
Research stay	Total	0	12	12
	Women	0	4	4
Thesis submitted	Total	6	0	6
	Women	3	0	3
Degree awarded	Total	3	0	3
	Women	2	0	2
Drop-out	Total	1	0	1
	Women	0	0	0
No information	Total	1	0	1
	Women	0	0	0
Total	Total	55	113	168
	Women	27	43	70

Source: DAAD³⁷

BMZ Indicators related to outcome 1

The indicators defined at programme level to report on outcome 1 are:

- X Master students, including X women, have submitted their thesis.
- X Master students, including X women, have been awarded their degree.
- 25 PhD students, including 7 women, have submitted their thesis by 2020.
- X PhD students, including X women, have been awarded their degree.

Output indicators to report on progress towards outcome 1 are:

- X Master students, including X women, have received a scholarship.
- X PhD students, including X women, have received a scholarship.

37 DAAD and BMZ have agreed on a set of indicators for measuring the progress and success of DAAD programmes. The agreement also includes that only one indicator per programme outcome needs to be quantified. This is why in the box above only one indicator is quantified. The agreement between BMZ and DAAD also states that no quantification of output indicators is required.

In the interviews conducted during the on-site visits, the professors teaching and supervising the students have stated their satisfaction with the **academic level of the students** selected for a scholarship. The positive perception of the qualifications level of the scholarship recipients was echoed by the four thematic experts who accompanied the evaluation team in the on-site visits.

The contribution the projects make to the further qualification of the students once they are selected varies, as the **modalities for scholarships vary** between and within projects. For instance, the RoHan project, which is amongst the projects that has funded the highest number of individuals, mostly allocates short-term scholarships for less than six months, and only five scholarships which fund students for longer than a year. In contrast, many other projects grant a significant proportion of their scholarships to fund the whole duration of a study programme.

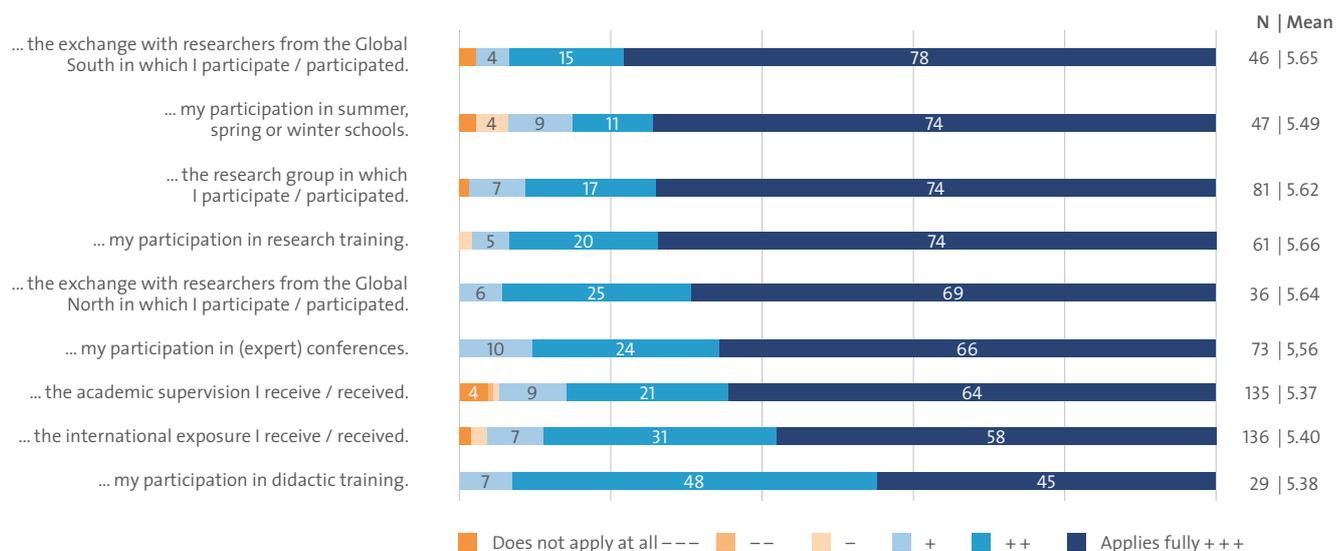
Modalities also vary regarding the structure of scholarship. Most of the projects primarily grant scholarships that fund students to complete most of their studies at the partner university abroad, in order to **leverage the potential for institutional capacity building in the Global South**. Since many projects encompass the elaboration of new study offers at the partner universities abroad, the scholarships thereby contribute to the attractiveness of newly developed study offers. In addition, interview partners have argued that funding in-country or in-region scholarships, as opposed to scholarships for studies in the Global North, may prevent brain drain. By creating perspectives for individuals to pursue an academic career in their home country or home region, training qualified Master and

PhD students also contributes to building a pool of potential future lecturers for study programmes. Supporting measures such as the occasion to attend summer school or conferences abroad or the opportunity to conduct field research add value to the studies in-country or in-region. At the same time, the case studies have shown that the most suited **modality for scholarships to be relevant and effective** – both at individual and institutional level – **depends on the context**. The formula chosen in the RoHan project, to grant a comparatively high number of shorter scholarships for stays at the German partner institutions, has been described by scholarship recipients as preferable to longer in-country scholarships in that context. A boost to individual academic careers in the field of catalysis can be achieved through a stay at the German partner institutions, because of a unique access to world class infrastructure and the opportunity to collaborate with internationally renowned experts in the field. This boost can be achieved through a comparatively short stay, which gives scholarship recipients the opportunity to quickly put their newly acquired competencies to work at their home universities.

Overall, as figure 7 shows, scholarship recipients³⁸ expressed a **high to very high satisfaction with the different aspects of the scholarships** (the two highest ratings on a scale with six options). This encompasses the aspects of access to resources for research, financial support received, infrastructure of the SDG graduate schools, and quality of teaching. High to very high satisfaction was also expressed with regard to support from the graduate schools' administration, with communication within the graduate schools, and with networking opportunities. These findings were corroborated in the interviews conducted with scholarship holders during the on-site visits.

Figure 7
Satisfaction with different aspects of the scholarships (in %)

I see an added value for my professional development in...



Source: Online survey of scholarship recipients, Syspons 2018/19

³⁸ Although outcome 1 specifically alludes to Master and PhD students, findings from the online survey of scholarship recipients presented in this chapter include responses from PostDocs.

Scholarship holders interviewed during the on-site visits were confident that they would be **able to finish their studies earlier and more successfully** than would have been the case had they not received the scholarship. One aspect that plays into this is that they can fully concentrate on academics because they do not have to work on the side to finance their studies. The quality of programmes, including close supervision in the elaboration of research theses, was also deemed an essen-

tial factor to foster academic success. A core component of all graduate schools, which was perceived to add significant value by both scholarship recipients and other scholars, were the **summer schools**. They were described as key for networking and cross-pollination of ideas among participants, thereby contributing to the academic and personal development of students.

4.2.2 OUTCOME 2: THE PARTNER INSTITUTIONS OFFER SDG-RELATED STUDY COURSES DEPLOYING ICT-BASED METHODS IN KEEPING WITH THE LOCAL CONTEXT AND CUTTING-EDGE SCIENTIFIC KNOWLEDGE

The second intended outcome of SDG-GS programmes is that partner universities offer study programmes relevant to the SDG and the local context. The programme aspires for these study programmes to correspond to state of the art and to incorporate information and communications technology (ICT).

The **range** of what the projects do to contribute to this outcome is **wide**. It encompasses the following:

- elaboration of new modules for existing degree programmes (Master of Urban Studies within the WITS-TUB cooperation);
- introduction of new specializations within existing degree programmes (specialization Urban Management under the umbrella of the existing Master of Urban studies within WITS-TUB cooperation);
- development of a set of new courses that lead to a certificate, but not a degree (certification in sustainable development and inequalities in the trAndeS project);
- establishment of new degree programmes (PhD programme on environmental peacebuilding and development in the DSSP project, Master and PhD in Cultural Sustainability in the Performing Sustainability project);
- establishment of new study centres that host new degree programmes (centre for the study and promotion of cultural sustainability at the University of Maiduguri within the Performing Sustainability project)
- establishment of double degree programmes between the German universities and the partner universities abroad based on existing programmes at both universities (joint Master's degree between the University of Hanoi and the University of Rostock in the RoHan project).

Within the **different academic disciplines** on which the projects work, **teaching and research is intertwined to different degrees**. For example, studies at (post)graduate level in chemistry have a very strong focus on lab work, and do not entail a lot of coursework. For this reason, there is comparatively less focus on strengthening teaching than on strengthening research in the two projects on tropical plants (Cameroon) and catalysis (Vietnam). In these and other projects where PhD training is a key component, the efforts on strengthening the study offer revolve strongly on the elaboration of offers to **strengthen interdisciplinary competencies**, both within and outside of **summer schools**. These offers to strengthen interdisciplinary competencies are however not necessarily restricted to PhD students. In many projects, they are open to all scholarship recipients, and events such as summer schools are often open to a wider network of scholars.

For the most part, the **newly devised or revised courses or degree programmes are already on offer** halfway through the first funding period. The new Master and PhD programmes at the University of Maiduguri have accepted the first intake of students in 2018, and the new specialization in Urban Management at the University of the Witwatersrand has accepted its first intake in 2019. The planned joint Master's degree between the University of Rostock and the University of Hanoi on the other hand is not yet established. The interviews conducted during the on-site visits have shown that the projects which managed to establish new degrees or study specializations within the offer of the university early into the funding period had two **success factors** in common. First, the revision of existing or the introduction of new degree programmes had been on the agenda of the head of school or faculty regardless of the project, and the project brought momentum to this endeavour. Second, the project teams had already gathered information on the requirements and administrative processes to get a new study offer accepted within the university when they elaborated the project proposal. Conversely, where no feasibility assessment had been done at the proposal stage, this proved to be a **hindering factor**.

For all newly established or revised degree or certification programmes, the degree / certification is delivered by the partner university abroad (jointly with the German partner university in the case of the planned double degree). The efforts towards the establishment of study programmes thereby **feed into the institutional capacity development** of the partner universities in the Global South. In this regard, two **success factors** were identified during the case studies abroad. First, newly established offers were embedded into existing structures. For example, the courses offered within the certificate programme on sustainable development and inequalities in the trAndeS project grant credit points at the Pontificia Universidad Católica del Perú (PUCP). These credit points are accepted in the existing Master programmes of the PUCP due to changes made in the study regulations. Students who take these courses can thereby replace other Master courses. The newly established study offer thus constitutes an added value for the students

and the partner university without creating parallel structures. The same holds true for the newly established specialization within an existing Master programme at the WITS in South Africa. The second success factor that feeds into the institutional capacity development of the partner universities is that while the projects granted scholarships for the new study offers, these study offers were for the most part also open to non-scholarship recipients. By opening these study offers to a wider audience, the projects lay the foundation for their sustainability beyond the funding period.

In total, 76 **curricula, teaching module or teaching events** have been newly developed or revised with support from the programme so far. Of these, 56 (73%) are already approved internally / and or are on offer at the partner university. Figure 8 provides more detailed information on the number of study offers within each of these categories.

Figure 5
Number of scholarships granted to date (2018)

	Curriculum	Course	Teaching Module	Other	No Information	Total
Revised	0	13	0	1	0	14
Newly developed	4	33	15	9	1	62
Total	4	46	15	10	1	76
Internally approved/offered	2	42	6	5	1	56 (73%)
Incorporating ICT	3	18	8	4	0	33 (43%)

Source: DAAD

So far, there have been 806 applicants for a study programme for which the curriculum, teaching modules or teaching events have been developed or revised with support of the programme. 796 students are currently enrolled.

BMZ Indicators related to outcome 2

The indicators defined at programme level to report on outcome 2 are:

- X applicants have applied for a study programme for which the curriculum, teaching modules or teaching events have been developed or revised with support from the programme.
- X students are enrolled in a study programme for which the curriculum, teaching modules or teaching events have been developed or revised with support from the programme.
- 70 % of newly developed or revised study offers are approved internally at the university or are being offered after 5 years.

Output indicators to report on progress towards outcome 2 are:

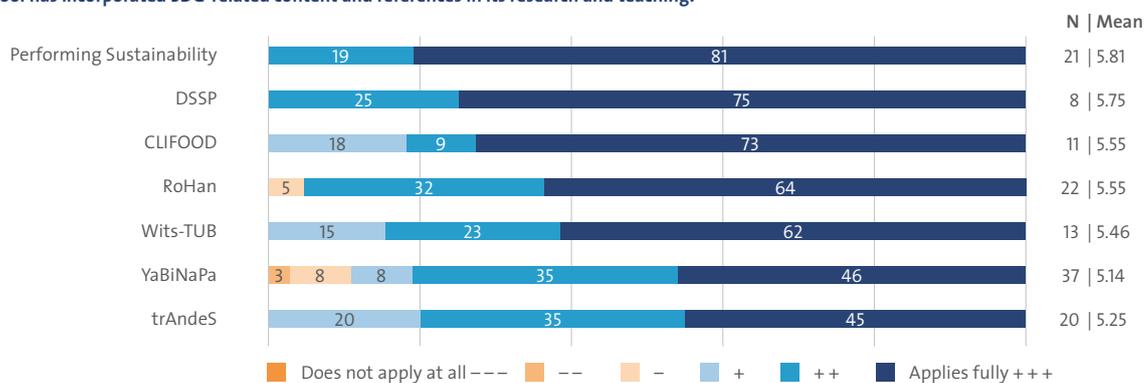
- X curricula, teaching modules or teaching events have been newly developed or revised with support from the programme.
- X curricula, teaching modules or teaching events incorporating ICT have been newly developed or revised with support from the programme
- Qualitative description of the cooperation with external stakeholders.

The relevance of the themes addressed in the projects regarding the SDG and the local context has already been established in chapter 4.1. The results of the online survey of scholarship recipients and the interviews conducted during the on-site

visits echo these findings with regard to the actual study experience. Figure 9 shows that scholarship recipients in all projects express high satisfaction with the degree to which SDG-themes have been integrated in teaching and research.

Figure 9
Incorporation of SDG-related content in research and teaching (in %)

The SDG Graduate School has incorporated SDG-related content and references in its research and teaching.



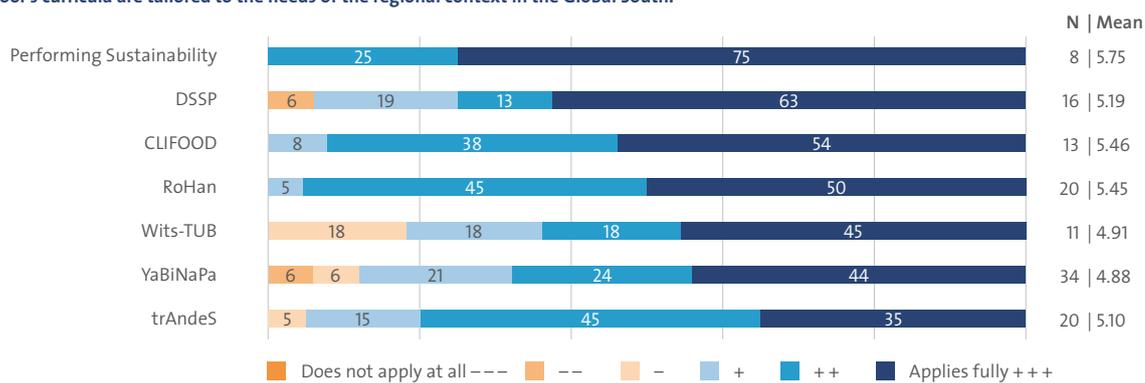
Source: Syspons 2018/19

Figure 10 shows that scholarship recipients widely consider the curricula to be tailored to the needs of the regional context in the Global South. Here, satisfaction differs somewhat between the scholarship recipients in the different projects, with reservations from a few respondents in the RoHan, CLIFOOD and YaBiNaPA projects. A possible explanation for this is that these projects include scholarships for students who

spend their scholarship at the German partner university. Also, two of these projects cater to students whose scholarship experience is centred on lab work, making the question of a curriculum less applicable. Overall, however, the picture is a positive one with regard to the extent to which the local context is taken into account in the study offers supported through the programme.

Figure 10
Relevance of curricula to the needs of the regional context in the Global South (in %)

The SDG Graduate School's curricula are tailored to the needs of the regional context in the Global South.



Source: Syspons 2018/19

The professors accompanying the evaluation team during the on-site visits to bring thematic expertise relevant to the given academic discipline came to a **positive qualitative assessment of the study offers**. In all four projects subject to an in-depth

case study³⁹, the academic level of the study offers is high according to the professors. The study offers introduce new aspects to teaching, and experiment with innovative formats (e.g. "urban walks" in the WITS-TUB Urban Lab). Moreover, the

39 RoHan – Rostock-Hanoi SDG Graduate School (Hanoi University of Science and Technology (HUST), University of Rostock), trAndeS – Postgraduate Programme on Sustainable Development and Social Inequalities in the Andean Region (Pontificia Universidad Católica del Perú, Freie Universität Berlin), German-Ethiopian SDG Graduate School: Climate Change Effects on Food

study offers are practice oriented. A **success factor** regarding the quality of the newly established courses and curricula is the participatory process for their elaboration, involving partner universities from Germany and the Global South. A good practice example in this regard is the elaboration of the curriculum for the new Master specialization in Urban Management at the University of the Witwatersrand. Here, curriculum development did not only involve scholars from the South African and German partner university, it drew on a wider network of academics from several countries of Sub-Saharan Africa. In addition to increasing the relevance of the product, this also provided an impetus for the scholars involved to work towards a revision of the curriculum at their respective universities. The participatory process thereby produced ripple effects for a wider network.

Finally, in terms of how the projects incorporate **ICT**, many examples were cited in the interviews. At the same time, most of these examples described use of ICT to facilitate communication between project stakeholders outside of the classroom, e.g. via Skype, Facebook or Whatsapp. Only few examples spoke to a strategic use of ICT to strengthen study offers. In some instances, projects have used ICT to transmit teaching sessions. This includes webinars (YaBiNaPa) and making selected lectures available online on Moodle (Performing Sustainability) or YouTube (WITS-TUB). While one project has filmed more than 20 lecturers to make them available to the

partner university, issues of copyright have yet to be resolved before these can be put to use (CLIFOOD). Overall however the use of ICT to transmit teaching lectures remains very limited. It is also not necessarily a priority of the universities, given that partner universities in the Global South are often confronted with limited internet bandwidth. Another **challenge** is that the lecturers involved in the projects are not always comfortable being recorded on camera and in a language that is not their mother tongue. Moreover, interview partners have pointed out that making a lecture attractive online requires more than just filming it, as adequate editing and experience with appropriate platforms is necessary. This is not always given within the project teams.

Beyond the transmission of lectures online, ICT has been used to facilitate virtual network meetings (YaBiNaPa), for project management (trAndeS), and for document management (Performing Sustainability) and to share course handbooks online (trAndeS). One project uses funding to provide scholarship recipients with access to electronic databases relevant to their field of study (YaBiNaPa). In one project, students reported being encouraged by their professors to use PowerPoint, and view this as an added value for their skillset as they had limited experience with this software. For the most part, however, the use of ICT in the projects does not go beyond how project stakeholders use ICT outside of the projects.

4.2.3 OUTCOME 3: THE SDG RESEARCH CAPACITIES HAVE BEEN EXPANDED

The third intended outcome of the SDG-GS programme is that capacities for research on the SDG are increased.

Depending on the academic discipline, the projects differ in the measures they are implementing to strengthen research capacities. The two chemistry projects have made substantial investments in scientific equipment for the partner universities abroad. Both have also put strong emphasis on training students and staff in the use and maintenance of this equipment. In other projects, endeavours to strengthen research capacities have focussed on granting PhD scholarships. Scholarships for Master students also contribute to strengthening research capacities, as many beneficiaries pursue research Master's which include the elaboration of a thesis and open the path to a PhD. To strengthen research capacities, scholarship recipients not only receive funding for their studies, but also for research stays. Moreover, all graduate schools regularly organize summer schools catering to both their scholarship recipients and a wider network of scholars as well as providing funding for students and academics from their network to attend conferences. Lastly, the projects also contribute to improving conditions for conducting research at individual and institutional level by purchasing computers that can be borrowed to students and by equipping the graduate schools with IT items needed for teaching and research. In some projects, conditions for research have also been improved by

financing better internet access or paying for access to electronic databases relevant to the respective academic field.

The **tailor-made combination** of measures depending on the character of the academic discipline and the needs of the partner university is a central element of the capacity development approach. Investments in equipment, scholarships and networking measures are leveraged through continuous exchange between the partner universities, allowing for peer-learning both at individual and at institutional level. The **synergies between different measures** can be exemplified by the approach adopted to strengthen research capacities in the RoHan project bringing together the Hanoi University of Sciences and Technology (HUST), Vietnam National University (VNU), the University of Rostock and the Leibniz Institute for Catalysis (LIKAT). In this project, Master students conducted research for their thesis, and PhD students and lecturers conducted research in projects. Both students and lecturers from the Vietnamese partner universities got the occasion to spend time at the German partner institutions. These stays were key to transmit competencies in instrumental methods and the interpretation of measurement data. During these stays, which allowed Vietnamese and German scientists to work together closely in the lab, progress on research projects was made. This in turn feeds into efforts of the graduate school to produce publications. The aim is to publish in renowned

journals to increase national and international standing of both the individual scholars and the partner institutions. The transmission of competencies during the research stays in Germany is complemented by summer schools which impart knowledge and allow for networking. Scientific networking is complemented by networking with stakeholders from the regional and national industry to ensure practice-orientation of research and visibility beyond academia. Competencies acquired through the stays at the German partner universities and during the summer schools can be applied back in Vietnam because of the investments made in scientific equipment for the partner universities in Vietnam. Since the target groups of the research stays are not only students but also lecturers, they act as multipliers towards improvement of research capacities (use of equipment, academic writing) at their home institutions.

In the two projects that made substantial investments in **scientific equipment** of the partner universities, interviewed students and scholars from the partner university have stressed the boost this represents for the research capacities. The scientific equipment installed at the partner universities in Vietnam (RoHan) and Cameroon (YaBiNaPa) is unique for higher education institutions in the region. Most notably, both projects provided funding to acquire mass spectrometers which make it possible to carry out measurements on-site that previously had to be done abroad. Beyond the mere increase in technical capacities, having competitive scientific equipment constitutes an added value for the partners in the natural sciences for several reasons. First, the capacity to conduct more ambitious measurements on site can be a factor that helps students complete their studies more swiftly and to have better chances to get their research results published. This can potentially contribute to make the institution more **competitive**, e.g. in rankings that consider publications or the average duration to graduation. A short-term increase in the competitiveness of the institutions also feeds into research capacities in the medium and long-term, as higher education institutions **compete for the brightest minds** to produce high-quality research.

As the institutional capacity to produce high quality research is closely linked to the research outputs of individuals and research teams, **scholarships and grants for research stays** are a core component of all graduate schools. In the interviews conducted with scholarship recipients during the on-site visits, beneficiaries from several projects have stated that they would not have been able to conduct field research without the sup-

port of the programme. Moreover, several interview partners stated that they would not have had access to research databases, had they not been affiliated with the respective SDG graduate school. The support provided by the programme has thus played a role in increasing research quality. Another core component of all projects, the **summer schools**, have also been described as a meaningful contribution towards strengthening research capacities on the SDG by both scholarship recipients and other scholars associated with the graduate schools. First, summer schools were an occasion to strengthen the methodological skill set of participants through seminars. Second, they allowed for condensed thematic exchange on the SDG, exposing participants to new ideas and contributing to the generation of new knowledge through cross-pollination of ideas. Third, they were an occasion for participants to network with other scholars working in the same thematic areas.

Since summer schools and conferences are an occasion for scholars to present their research outputs, attending them also **hones the skills** of scholarship recipients to **deliver presentations** of their academic work. Several scholarship recipients explained that without their participation in the programme, they would not have had the same occasions to present their work in an international environment. Several students described this experience as an important contribution to their self-esteem. In particular, students from Vietnam and Cameroon explained that presenting their research in English had forced them to get out of their comfort zone and made them **gain confidence in their academic abilities**.

Funding to conduct research, strong support from thesis advisors, contacts with international scholars renowned in their field and increased exposure helped individuals and research teams produce **publications**. According to the programme's monitoring system, so far, 267 publications have been produced by members of the seven graduate schools. Of these, 193 were **peer-reviewed articles** in scientific journals. At the same time, an analysis of the list of publications emanating from the graduate schools also revealed that so far most of these publications were by the professors involved in the projects, and not by scholarship recipients. In fact, only 38 of these publications were by PhD students funded by the programme. At the same time, this number already exceeds the target value (35) for publications defined within one of the programme indicators. Interview partners expected the share of publications by scholarship recipients to rise, as most of the 115 PhD students were only in first or second year of their programme at the time of the evaluation.

Figure 11
Publications emanating from the SDG Graduate Schools

Type of publication	Quantity
Project report / technical report / working paper (“grey literature”)	18
Review / critique	2
Scientific anthologies	8
Conference Volume	14
Scientific monograph	3
Scientific journal without peer review	3
Scientific journal with peer review	193
Miscellaneous	26
Total	267
Publications resulting from PhD studies financed by the programme	38

Source: DAAD

BMZ Indicators related to outcome 3

The indicators defined at programme level to report on outcome 3 are:

- 35 publications have been published with support from the programme.

Output indicators to report on progress towards outcome 3 are:

- X publications have been produced as a results of PhD studies supported by the programme.
- X graduate schools have developed a common framework for research-oriented training on the SDG.

A **research framework** for each graduate school, ensuring relevance of the research produced to the SDG, was mostly developed implicitly through the calls for scholarships and through elaboration of the programme for the summer schools. These ensured that research produced by students and associated scholars would be aligned to the thematic focus of the respective graduate schools. The graduate schools left leeway for the scholarship recipients to determine their own research subject, as long as it fit into the scope of the school. Professors associated with the graduate schools provide orientation to sharpen the thesis proposal to ensure alignment. Overall scholarship recipients expressed a high degree of satisfaction with the orientation they received for their research. In the Ro-Han project however, which is characterized by mostly shorter scholarships for research stays at the partner institutions in Germany, some interviewees expressed that more intensive coordination regarding the research subjects addressed in Vietnam and Germany would be beneficial. They felt that

some time had been lost at their arrival in Germany to adapt their research project to the research focus at the German partner institutions.

A quality shared by the research framework of several graduate schools is **interdisciplinarity**. For example, the YaBiNaPa project brings together students of biology and chemistry to investigate microbial and parasitic diseases. The project Performing Sustainability brings together students with backgrounds from the arts, theatre, political sciences, sociology and anthropology to research peace and conflict resolution. Another example is the WITS-TUB PhD programme bringing together students with previous degrees in urban management, architecture and development policy. Students of the different graduate schools were positive regarding the potential of interdisciplinarity for the development of innovative concepts, methods and approaches.

4.2.4 OUTCOME 4: THE GRADUATE SCHOOLS OPERATE WITHIN NETWORKS AND WORK TOGETHER WITH RELEVANT EMPLOYERS AND STAKEHOLDERS FROM POLITICS, BUSINESS AND CIVIL SOCIETY

The fourth intended outcome of the SDG-GS programme is that the graduate schools work in networks with relevant employers and stakeholders from the public sector, the private sector, and civil society.

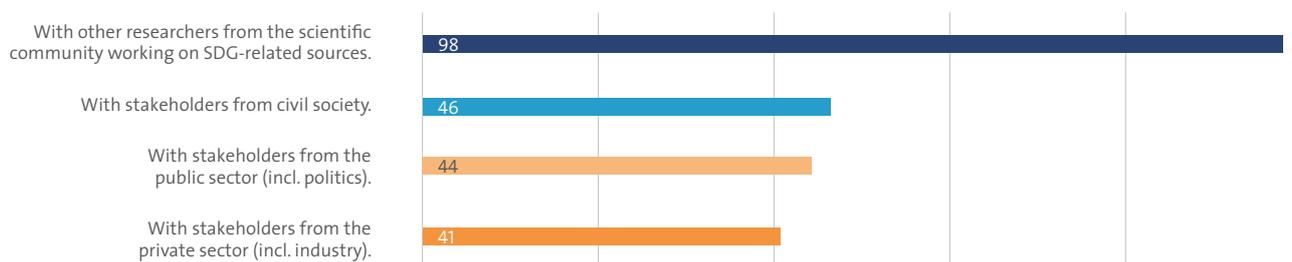
The first observation with regard to the networks within the programme is that while this does not explicitly figure in the Theory of Change, academic networks play a much higher role than **networks with stakeholders outside of academia**. While the quality of academic networks is characterized by repeated interactions between scholars that lead to scientific cooperation, contacts with stakeholders from outside academia tend to be more **limited**. While all graduate schools do engage with stakeholders from outside of academia, in several projects this type of networking mainly revolves around inviting external actors to one-off events. Organizing exchange sessions for

students with stakeholders from the public and private sector and civil society during summer schools is also part of the networking activities of the projects. More intensive engagement with actors outside of academia, e.g. community outreach, internships for students, or associating industry to research activities, only takes place to a limited extent in few projects.

The **prevalence of academic networks** over networks with other types of stakeholders is reflected in the results of the online survey. As shown in figure 12, 98 % of scholarship recipients state that their GS engages with researchers from the scientific community working on SDG-related issues. By contrast, 46 % of respondents indicated that their GS engages in networking with stakeholders from civil society, 44 % reported networking with the public sector, and 41 % with the private sector.

Figure 12
Character of the networks of the Graduate Schools (in %)

The SDG Graduate School's curricula are tailored to the needs of the regional context in the Global South.



Source: Syspons 2018/19

A look at the survey results per graduate school provides more differentiation and shows variety with regard to the intensity of engagement with actors outside of academia between the different graduate schools. The two projects with the highest degree of engagement are the same across all three categories (civil society, public sector, private sector): Performing Sustainability and WITS-TUB. 81 % of the Performing Sustainability scholarship recipients state the project networks with civil society and the private sector, and 66.7% say the same for the public sector. In the WITS-TUB project, 76.9 % of scholarship recipients state that networking occurs with civil society and the public sector, and 61.5 % say so for the private sector. At the same time, projects for which survey results show a low degree of engagement with one type of stakeholder may display a high degree of engagement with other types of stakeholders. For example, while only 4.5 % of trAndeS scholarship

recipients state the project engages in networking with the private sector, 50 % attest to networking with civil society and the private sector. In the YaBiNaPa project and the CLIFOOD project, differences between the extents of networking with different types of stakeholders outside of academia are not as pronounced (between 28.2 % and 35.9 % for YaBiNaPa, and between 46.2 % and 53.8 % for CLIFOOD).

The type of networking in which the different graduate schools engage depends on the academic discipline and on the purpose of networking activities. Regardless of the academic discipline, the projects do not only see networking as a means to foster employability (as per the programme's Theory of Change), but also as a means to ensure that research outputs are relevant for practice.

BMZ Indicators related to outcome 4

The indicators defined at programme level to report on outcome 4 are:

- 7 networks involving external stakeholders from the public sector, the private sector and / or civil society are established by 2020.

Output indicators to report on progress towards outcome 4 are:

- X contacts with external stakeholders from the public sector, the private sector and civil society have been newly established
- X events with the participation of external actors from politics, the private sector and civil society were organized

While practice-orientation and employability are linked, **relevance of research outputs for public policy, advocacy and industry** is also seen as a goal in itself. Depending on the academic discipline and the thematic focus of the graduate school, the projects emphasize cooperation with different types of stakeholders. For instance, in the YaBiNaPa project researching on natural products to fight microbial and parasitic diseases, MoUs have been signed with the Centre Pasteur, the Cameroon National drugs quality control and validation Laboratory (LANACOME) and the Cameroon Institute of Medical Research and Studies of Medicinal Plants (IMPM). These partnerships are a crucial entry point for research results to be used, as some of these institutions have an accreditation for quality control and approval of plant-based drugs. By contrast, the trAndeS project working on inequalities in the Andes region has privileged networking with policy actors and representatives of civil society and political foundations, inviting them to project events to give feedback on the research of scholarship recipients. The Performing Sustainability project in Nigeria / Ghana also has associated foundations, NGOs and state actors to act as sparring partners for students fleshing out their research projects. In other projects, such as the WITS-TUB partnership, NGOs and local authorities are invited to present the work of their institutions to the students during summer schools. This is intended to help students identify linkages between their research and practice, and to get to know potential employers.

The only project where internships are a mandatory part of the programme is the Performing Sustainability, where each scholarship holder is required to do a one-month internship. The evaluation team asked students from other projects to what extent they would deem internships an added value to their study experience, and the opinions were mixed. This is mainly because scholarship holders in some projects have only limited work experience related to their field of study, whereas scholarship holders in other projects already had more work experience. While the former tended to welcome the idea of including internships in the programme, the latter did not.

Overall, the projects have organized 439 **events open to external stakeholders**, which were attended by 2088 people not directly affiliated with the projects. In total, 438 **new contacts** were established by the projects since the beginning of the funding programmes. A clear majority (254) of these newly established contacts were with stakeholders from science or research. Outside of this, most newly established contacts were with civil society (74), followed by representatives from the public sector / politics (46). The remaining new contacts were established with representatives from the private sector (33) or fitted neither of these categories.

Figure 11
Publications emanating from the SDG Graduate Schools

Type of stakeholder contact	
Science / research	254
Private sector	33
Civil Society	74
Public Sector / politics	46
Other	31
Total	267

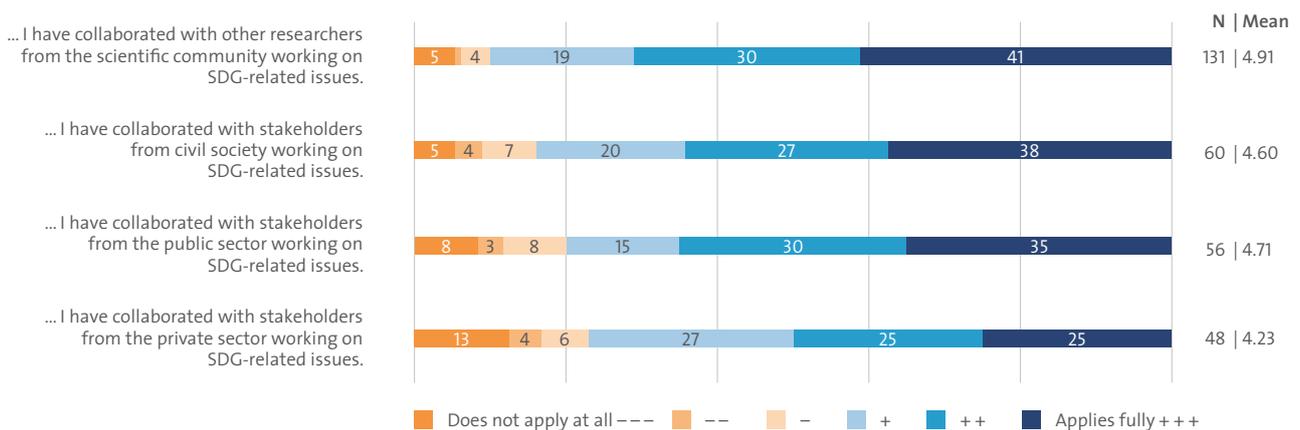
Source: DAAD Project Reports

The results of the online survey provide insights into the extent to which the networking activities **led to collaboration on SDG-related issues** for the scholarship holders. Figure 14 shows the answer to a filter question. If respondents had previously answered that their graduate school was engaged in networking with academia, civil society, the public sector and / or the private sector, they received a follow-up question on the

extent to which they personally had engaged in collaboration with these stakeholders. The results show that the most intensive collaboration has occurred with other researchers from the scientific community (4.91 on a scale of 1 to 6), followed by collaboration with stakeholders from the public sector (4.71) and civil society (4.60). The intensity of collaboration with stakeholders from the private sector was the lowest (4.23).

Figure 14
Quality of collaboration by type of stakeholder (in %)

As part of my involvement at the SDG Graduate School, ...



Source: Online survey of scholarship recipients, Syspons 2018/19

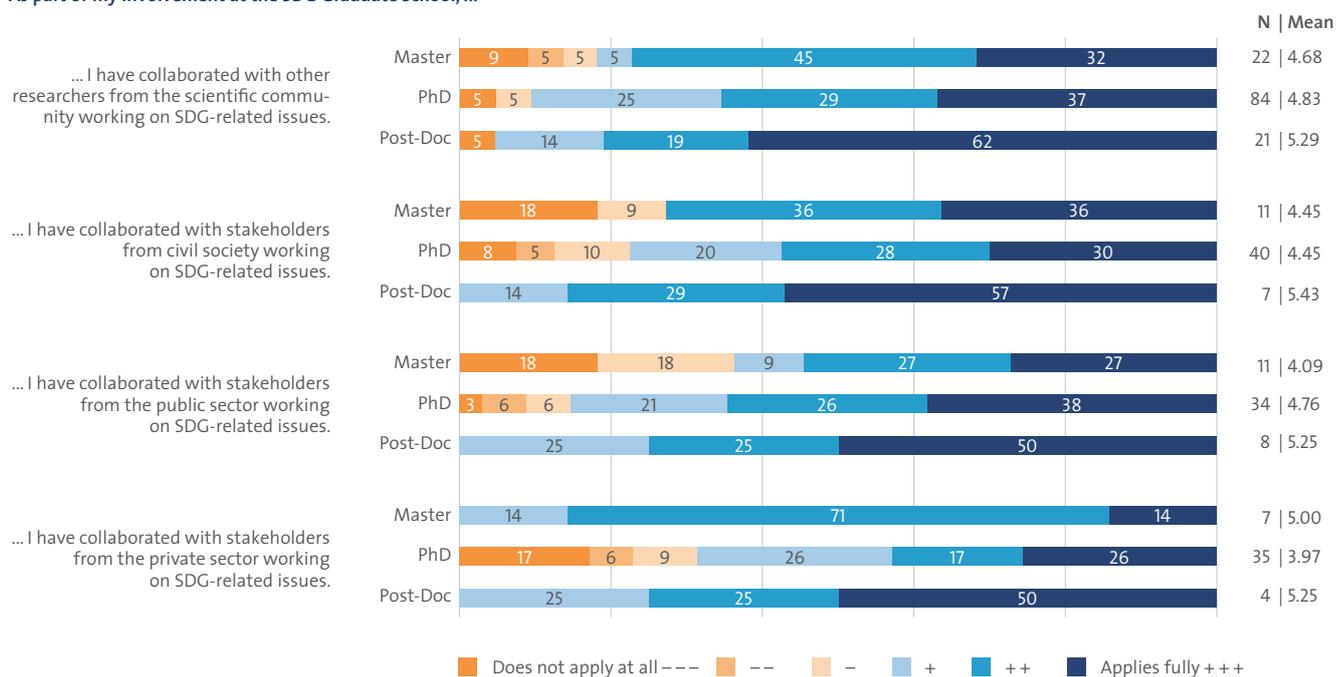
These results are in line with the finding that networking activities of the programme **focus on networking with other stakeholders from academia**. Scholarship recipients and other scholars involved in the project have underlined the added value of summer schools and conferences to initiate and pursue scientific collaboration. One **success factor** for networking activities to blossom into meaningful collaboration was for the same group of individuals to get the occasion to come together at several occasions. This aspect was mentioned by interview partners from several projects, who explained that they were much more likely to establish a meaningful cooperation with colleagues with whom they got to interact several times, than solely on the basis of a one-off face-to-face interaction.

Survey results indicate that the more advanced scholarship recipients are in their studies, the more intensive their collaboration on SDG-related issues with other stakeholders tends to be (see figure 15). Regardless of whether one looks at the collab-

oration with other researchers from the scientific community, with civil society or with the public or private sector, on average, **Postdocs rate the intensity of collaboration highest** (average between 5.25 and 5.43). PhD students and Master students report the same intensity of collaboration with other researchers from the scientific community (average of 4.45). While PhD students report a higher intensity of collaboration with academia (4.83) and public sector stakeholders (4.76) than Master students (4.68 and 4.09, respectively), Master students report a higher intensity of collaboration with private sector stakeholders (5.0) than PhD students (3.97). A possible explanation for the correlation between study progress and intensity of collaboration may lie in the increasing complexity of research as students progress in their education. Another explanation may lie in increased awareness of older students regarding the added value of networking for career development, as well as being increasingly comfortable at seeking out cooperation.

Figure 15
Quality of collaboration by study progress (in %)

As part of my involvement at the SDG Graduate School, ...



Source: Online survey of scholarship recipients, Syspons 2018/19

4.2.5 OUTCOME 5: INNOVATIVE FINANCIAL AND STRATEGIC APPROACHES TOWARDS ENSURING THE SUSTAINABILITY OF THE SDG GRADUATE SCHOOLS HAVE BEEN DEVELOPED

The fifth intended outcome of the SDG-GS programme is that partner universities have developed innovative financial and strategic approaches to ensure sustainability of the Graduate Schools.

The first observation in this regard is that requirements towards sustainability were not formulated in detail in the calls for projects, leaving **room for creativity** in the context of the respective project. Moreover, the concept Graduate School has not been clearly defined by the programme, leaving room for interpretation as to what sustainability entails. Additionally, aspirations in terms of the innovative character of approaches towards sustainability have not been defined.

The second preliminary observation is that the first funding phase of the programme is still running for another year and a half, and that the DAAD has signalled the **possibility for the projects to obtain funding for a second five year phase**, subject to a positive assessment by an independent expert commission (unrelated to this evaluation) and by BMZ. Consequently, all projects are currently planning to submit a proposal for a second funding phase starting 2021 and have high hopes to be able to continue their activities with DAAD funding through 2025. The projects have set particularly high hopes on obtaining DAAD funding for a second financing period because op-

portunities for third-party funding that would cover both the volume and the scope (strengthening individual and institutional capacities for both research and education) of what the SDF-GS programme covers are limited.

These limitations notwithstanding, **financial approaches towards sustainability** of the Graduate Schools include submitting funding proposals to other organisations to continue or further develop activities of the SDG-GS. Several projects have submitted or intend to submit funding proposals for research to the German Research Foundation (DFG) and the German Federal Ministry of Education and Research (BMBF). Two projects have submitted Erasmus + proposals to finance capacity building, education and student mobility. Only one project has submitted a funding proposal in the partner country: the trAndeS project has applied to a funding line of its Peruvian partner university, the PUCP. Overall, the projects deem the opportunities for third-party funding in the partner countries to be limited.

Beyond acquiring additional funding, a commitment of German universities and their counterparts abroad to continue collaborating on SDG-related subjects has been cited as one aspect of sustainability in several interviews. Continuous engagement with academic networks serves several purposes.

First, it contributes to the identification of qualified candidates for study offers and scholarships. Second, it contributes to the identification of scholars who are interested in short or long-term academic exchange. Third, network partners provide valuable input to the contents and didactics of study offers, ensuring that these stay up to date and relevant. Finally, academic networking is also a vector for disseminating innovative didactical approaches beyond the partner universities funded by the SDG-GS programme.

Anchoring newly developed study offers in the partner universities abroad is seen as an important component of sustainability and is already achieved in several projects (further discussed in chapter on sustainability). Moreover, the fact that scholarship recipients strengthen the potential pool of future lecturers and researchers of the partner universities is viewed as a component of sustainability. Additionally, the project “Performing Sustainability” also views sustainable access to data collected in field research by its scholarship recipients as one component of sustainability. It therefore plans on establishing a digital archive.

For the two projects in the natural sciences that have made major investments in the labs of the partner universities abroad, ensuring long-term use of scientific equipment is a major consideration for sustainability. A first challenge that had to be overcome in this regard by the University of Bielefeld and the University of Yaoundé was an administrative issue.

The fact that the purchase for scientific equipment had been made by the German partner university had administrative ramifications, as the University of Bielefeld is accountable to the German Federal Court of Auditors and cannot use funding it has in its books for purchases not in its books. The project has devised an arrangement whereby the scientific equipment legally belongs to the University of Bielefeld but is relinquished to the University of Yaoundé as long as the Graduate School is running. At the operational level, both the YaBiNaPa and the RoHan project have provided ample technical training for the lab personnel at the partner universities abroad to ensure they have the competencies to use the equipment without external support. An issue that is still pending in both projects is a concept for funding costs for lab material after DAAD funding runs out.

Finally, creating ownership for the SDG-Graduate Schools at the level of the partner universities abroad through partnerships on equal footing is an important aspect of sustainability according to interview partners from several projects. This includes ongoing training of partners abroad in the administrative requirements of project management. According to the programme and project reports, 76 individuals from partner countries have received **administrative training** to ensure smooth running of the projects. This training was partly delivered by DAAD during joint network meetings organized for all projects, and partly delivered by the projects themselves.

BMZ Indicators related to outcome 5

The indicators defined at programme level to report on outcome 5 are:

- 7 Graduate Schools have jointly developed a strategy to ensure sustainability.

Output indicators to report on progress towards outcome 5 are:

- X individuals from partner countries have been trained in administration.

4.2.6 OUTCOME 6: GERMAN UNIVERSITIES HAVE GAINED EXPERTISE IN DEVELOPMENT COOPERATION

The sixth intended outcome of the SDG-GS programme is that German partner universities have gained expertise in development cooperation. This outcome was not part of the initial Theory of Change of the programme shared with universities partaking in the call for proposals. It was added subsequently in an effort to harmonize the Theory of Change with other Theories of Change for BMZ-funded projects within DAAD. Since the outcome was not part of the initial Theory of Change, projects have not translated it into their project planning and are not actively steering towards it. Still, some observations can be made on this outcome.

First, German project coordinators and team members of several projects already had experience with development cooperation prior to participating in this programme, e.g. through cooperation with GIZ, or through participation in another large-scale DAAD programme (Exceed). Many other project teams already had prior experience with international higher education cooperation and the administrative and financial processes it entails. In spite of previous experience with international cooperation and, for some, development cooperation, working with results-oriented monitoring was a novelty for many German universities. The training sessions offered

by DAAD on results-oriented monitoring within the SDG-GS allowed them to acquire new competencies relevant for development cooperation. Several German project coordinators have expressed regret that the training on results-oriented monitoring did not involve partners, as they felt a joint understanding of how to use it would have benefitted project implementation between German universities and their partners abroad.

Second, German project coordinators and their teams adhere to the idea that it is not only the partner universities abroad that should learn from the partnership, but also the German universities. In this regard, some interview partners have pointed out that the structural conditions of the SDG-GS programme (especially the fact that sole responsibility for finances lies with the German university) somewhat limit the

potential for the projects to be experienced as partnerships between equals. In addition, some interview partners felt that the narrative conveyed in the programme documents conveys a rather reductionist understanding of international higher education cooperation as a mere transfer of competencies from the North to the South.

German universities see potential for themselves to learn from the programme, and to not limit this to competencies in development cooperation. German project coordinators have expressed that their institutions also benefit from joint development of study offers, as they receive new inputs for curricula and didactics. Another example cited for German universities learning from their peers abroad were experiences in community mobilization in the Global South.

4.3 PROJECTED IMPACTS

As the first funding phase of the programme has only been running for approximately three years at the time of the evaluation, it is too early to come to conclusive findings with

regard to impacts of the programme. The following sections therefore only present preliminary observations on the intended impacts of the programme.

4.3.1 IMPACT 1: THE TRAINED SPECIALISTS ARE WORKING ON SOLVING DEVELOPMENT-RELEVANT ISSUES

The first intended impact of the SDG-GS programme is that the individuals trained in the programme will tackle issues relevant to development in their future careers.

The results of the online survey show that the programme has **contributed to steer participants towards a career tackling SDG-related challenges**. Figure 16 shows that 95 % of survey respondents state that their participation in the programme has increased⁴⁰ their motivation to tackle SDG-related challenges. Furthermore, 95 % state that participation has increased their motivation to pursue a career in research, and for 80 % it has increased their motivation to pursue a career in academic teaching. Moreover, for 86 % of respondents, participation has increased their motivation to pursue a career as a practitioner. This resonates with the close link between research and teaching in academia and shows that working in

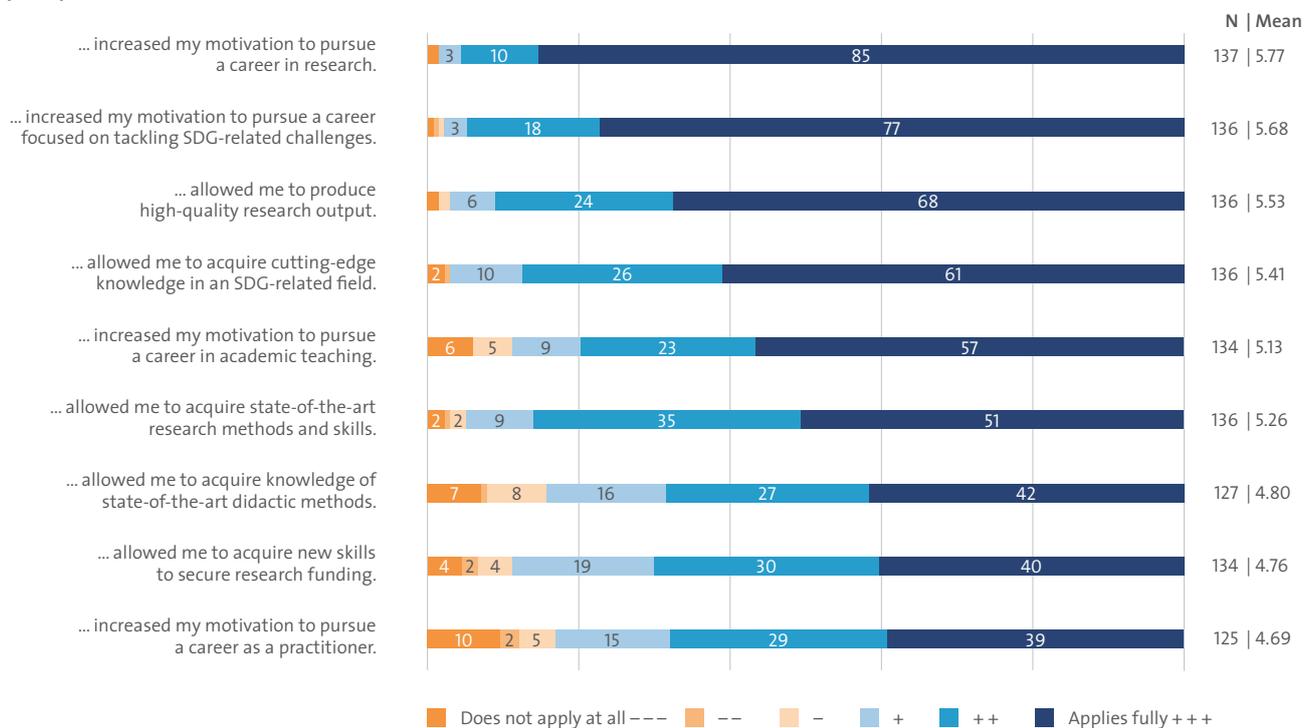
academia and working as a practitioner are not seen as mutually exclusive. The findings from the online survey are echoed by statements made by scholarship recipients during the on-site visits. A large proportion of interviewees could see themselves working in academia, with some expressing a preference for a job that would allow them to focus only on research and that does not entail teaching responsibilities. While many students expressed an interest in an academic career, many were still undecided about what they wanted to do after graduating. Several students interviewed also saw working in the public sector, the private sector or an NGO as an option. Regardless of the type of employment they aspired to, students expressed that programme participation had sensitized them to the SDG and that they were keen on working on issues relevant to development.

40 The two highest values on a 6-point scale ranging from “does not apply at all to applies fully” have been summed up here.

Figure 16

Influence of programme participation on career aspirations and competencies of scholarship recipients (in %)

My participation in the SDG Graduate School has ...



Source: Online survey of scholarship recipients, Syspons 2018/19

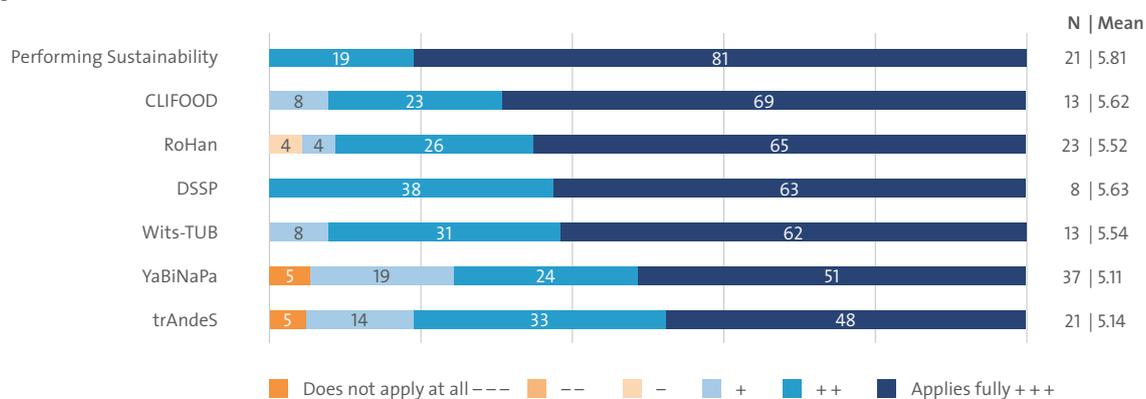
The results of the survey further indicate that participation in the programme has **equipped scholarship recipients with relevant knowledge, skills and competencies to tackle SDG-related issues**, especially in an academic context. Figure 16 shows that 81 % of participants state that they have acquired cutting-edge knowledge in an SDG-related field. In terms of academic skills, 86 % state that they have acquired state-of-the-art research methods and skills, while 69 % state that they have acquired knowledge of state-of-the-art didactic methods. In addition, 70 % of respondents say they have acquired new skills to secure research funding. An analysis of survey results

differentiated by Graduate School shows that scholarship recipients in all projects expressed themselves favourably on the extent to which they acquired cutting-edge knowledge in an SDG-related field. On a scale of 1 to 6, mean values range from 5.11 (YaBiNaPa) to 5.81 (Performing Sustainability). The professors accompanying the evaluation team during the on-site visits of four projects⁴¹ also assessed the competencies transmitted by the graduate schools as relevant to prepare students to tackle development issues. They further perceived the training delivered by the graduate schools to be of high quality.

41 CLIFOOD, RoHan, Wits-TUB and trAndeS

Figure 17
Acquisition of SDG-related knowledge by Graduate School (in %)

My participation in the SDG Graduate School has allowed me to acquire cutting-edge knowledge in an SDG related field.



Source: Online survey of scholarship recipients, Syspons 2018/19

A risk discussed between the evaluation team and interview partners is **brain drain**. Regardless of intentions declared by scholarship holders in the context of the interim evaluation, the possibility for them to be attracted into an occupation abroad and / or unrelated to development remains. While brain drain is often associated with the emigration of highly qualified individuals from a particular country, several interview partners also raised the issue of internal brain drain. From their perspective, scholarship recipients opting for a career in their home country or region, yet unrelated to development or higher education, would also constitute a loss. While it is too early to find out to what extent this risk will materialize, the perspectives of representatives from the partner universities can be shared. First, several project promoters emphasized that privileging in-country or in-region scholarships (as has been done in most projects) over scholarships for studies in the Global North is a means to putting students on a path for a career in their home country or region. Second, interview partners from the RoHan project viewed temporary emigration of some scholarship recipients as rather probable but did not necessarily view this negatively. From their perspective, participation in the project and in particular research stays at the highly renowned LIKAT made scholarship recipients more competitive and therefore increased chances for them to receive further opportunities for scholarships or employment abroad. At the same time, they expressed confidence that most Vietnamese scholars return to their home country after a few years abroad. Should some alumni of the SDG-GS programme temporarily emigrate, this would only enhance their competencies and would ultimately favour the country upon their return. In addition, even those who do not return can benefit the country / economy from abroad. Lastly, interview partners in the CLIFOOD projects saw a risk that scholarship recipients might not go on to work in academia, but rather fa-

vour a better-paid job with an NGO or government sector. At the same time, while this would constitute a loss for the higher education sector, alumni may still address issues relevant to development when working in other sectors.

In addition to the programme's emphasis on in-country or in-region scholarships, interview partners cited several external and internal **factors preventing brain drain**. An external factor in the Ethiopian context is a law obliging scholarship recipients to continue teaching in the national higher education system for up to six years after their scholarship ends. While this regulation is hard to enforce and the Ethiopian higher education sector has experienced brain drain in spite of it, interviewees from the Ethiopian partner university were confident that the CLIFOOD project had created incentives for students to return. The main incentives cited in this regard were the research focus of students sent abroad on local Ethiopian issues, as well as co-supervision of their thesis by Ethiopian professors, strengthening ties to their home country. In the case of the RoHan project, many individuals who receive funding for a research stay in Rostock are already working as lecturers at the Vietnamese partner universities. According to interview partners, having a work contract at home makes them less susceptible to brain drain, especially now that the Vietnamese partner universities have better scientific equipment, making it possible to apply newly acquired competencies there. Additionally, strong personal relationships between the project team and scholarship recipients are seen as key to retain staff and encourage scholarship recipients to continue working on catalysis upon their return. Finally, the establishment of linkages to potential employers – whether from the public or the private sector or from civil society – has been cited as a bulwark against brain drain by interview partners.

4.3.2 IMPACT 2: THE QUALITY AND RELEVANCE OF TEACHING AND RESEARCH AT THE PARTNER HIGHER EDUCATION INSTITUTIONS HAS BEEN IMPROVED

The second intended impact of the SDG-GS programme is that the programme contributes to improved quality and relevance of teaching and research at the partner universities.

This impact is closely related to outcome 2 (partner universities offer SDG-related study programmes) and outcome 3 (the capacities for research on the SDG are increased). It is further related to outcome 1 (qualified students have been trained) and impact 1 (skilled experts tackle challenges related to development), as the training of scholars provides a talent pool on which the partner universities can draw to strengthen their SDG-related training and research.

As previous chapters have shown, the programme has made meaningful contributions to study offers and research capacities of the partner universities. The extent to which quality and relevance of both teaching and research are strengthened at a given institution depends on the extent to which research and teaching are intertwined in the given academic discipline. While some projects focus more on research and others more on teaching, overall the programme has contributed to strengthen both. SDG-related aspects have been incorporated through the development or revision of study offers as well as in research agendas of the graduate schools. As shown before, research capacities have been strengthened through both individual capacity building and investments in scientific equipment. The extent to which investments in scientific equip-

ment can uphold research quality in the long term will depend on the extent to which partner universities can maintain this equipment and can finance costs for lab material. In the interviews conducted during the on-site visits, project coordinators have expressed awareness of the need to tackle these issues.

Both teaching and research at the graduate schools is characterized by interdisciplinarity and practice-orientation. The approval of new or revised study offer contributes to anchoring these quality attributes. At the same time, since institutional and individual capacities are intrinsically linked, the extent to which quality and relevance of teaching and training will be improved in the long term also depends on the human resources of the partner universities. By providing scholarships to 55 Master students, 109 PhD students and 39 Postdocs / other beneficiaries so far, the programme has already made a contribution to the pool of potential future lecturers and researchers for the partner universities and the higher education sector in the partner countries.

The results of the online survey show that the overwhelming majority of scholarship recipients is interested in pursuing a scientific / academic career upon completion of the programme. Figure 18 shows that 91 % respondents are interested in pursuing academic teaching, and 87 % are interested in pursuing scientific research. Only 1 % of respondents are interested in neither.

Figure 18
Motivation of current scholarship recipients to pursue an academic / scientific career (in %)

Are you interested in pursuing a scientific / academic career upon your completion of the program?



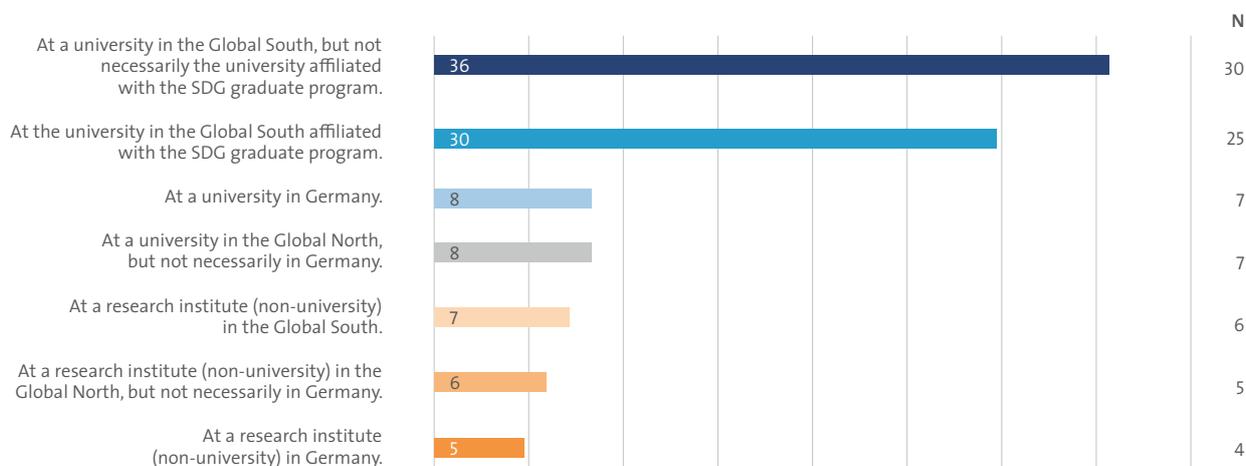
Source: Online survey of scholarship recipients, Syspons 2018/19

A strong majority of scholarship recipients (73 %) is interested in pursuing an academic career in the Global South. Of these, 30 % are interested in pursuing a career at the university affiliated with the SDG graduate programme, and 36% are interested in working at a university in the Global South, but not necessarily the SDG-GS university. Another 7 % are interested in pursuing an academic career at a research institute

(non-university) in the Global South. The programme thus has both the potential to strengthen the capacities of the partner universities, and to contribute to strengthening the higher education sector in the Global South. As described in the chapter on relevance, increasing the share of lecturers with an MA and PhD degree is an objective in many partner countries of German development cooperation.

Figure 19
Preference regarding where to pursue an academic career (in %)

Where would you like to pursue your academic career?



Source: Online survey of scholarship recipients, Syspons 2018/19

4.3.3 IMPACT 3: THE SDG GRADUATE SCHOOLS ARE COMPETITIVE AND SUSTAINABLE

The third intended impact of the SDG GS programme is that the Graduate Schools are competitive and work sustainably.

Preliminary observations with regard to this impact need to take into account that competitiveness is defined in the programme documents. Given that the partner universities are highly heterogeneous, aspirations in terms of competitiveness may differ. At the current stage, a few overarching observations can however be made.

- According to the professors accompanying the evaluation team during the on-site visits, the Graduate Schools have strong thematic expertise and well designed teaching modules. Furthermore, the study offers are practice-oriented.
- Involved scholars publish in internationally renowned journals. This is partly made possible through cooperation with the scholars from German partner universities.

- New knowledge on SDG-related fields is produced through the research of the Graduate Schools.
- In the projects that invested significantly in scientific equipment, this equipment has substantially contributed to improve the competitiveness of the partner institutions in terms of research.
- Academic networks are strengthened through the projects. They contribute to the competitiveness of research and study offers of the Graduate Schools.
- The number of applications to scholarships is increasing over time, as the Graduate Schools gain more visibility.
- Both the growing number of applications and the fact that most newly established or revised study offers are already incorporated in the programme of the partner universities abroad are a preliminary indication that the Graduate Schools work sustainably.

4.3.4 ASSESSMENT OF THE DEVELOPMENT OF THE CAPACITIES OF THE PARTNER UNIVERSITIES

In the inception phase of this evaluation, an “ideal model” of the capacities of an SDG Graduate School was jointly developed by the evaluation team and DAAD. This formed the basis of a before-and-after comparison of the development of the capacities of the partner universities abroad between the beginning of the project and today. It distinguishes four capabilities:

- The **capability to act and commit** describes to what extent the SDG-GS conducts applied research and teaching and provides students, researchers and lecturers with access to infrastructure relevant to their subject area (e.g. laboratories, equipment, libraries). It also assesses whether the SDG-GS has sufficient staff to ensure the maintenance of equipment. It further measures the extent to which the SDG-GS has enough research staff qualified in teaching and training Master and PhD students and has set up study programmes with relevant SDG modules and offers state-of-the-art degrees. It also examines whether an institutionalized selection process for staff and students is in place, and whether the GS is able to attract a sufficient number of adequately qualified students. Finally, it looks into whether the SDG-GS has sufficient administrative capacities and is able to incorporate gender-sensitive measures into its day-to-day operations.
- The **capability to relate** analyses to what extent the SDG-GS is sufficiently integrated within the wider university structures (e.g. other faculties and institutes) to allow for interdisciplinary research, and in how far it is represented in the political structures of the university (e.g. in committees). It further examines the degree to which it is connected with stakeholders from the private sector, the public sector, and from civil society, as well as with universities and research institutes in the Global North and the Global South. It also looks at the extent to which the SDG-GS actively participates in subject-specific networks and participates in organized symposia. Finally, it examines the extent to which it is visible and well-recognized in the region as a state-of-the-art institution for research and teaching.
- The **capability to adapt and self-renew** examines to what extent the SDG-GS has sufficient resources to cover maintenance needs in research and teaching infrastructure. Moreover, it covers whether it has established a quality assurance system for teaching. It also looks at whether the GS regularly reflects on needs to adapt its steering structures and whether it readily adapts when needed. This encompasses the establishment of processes to translate feedback from its networks into concrete measures and actions, and the establishment of processes to review and update academic content. It also looks at the attitude towards

change at the level of the individuals in charge of the SDG-GS. Finally, the capability to adapt and self-renew examines whether a knowledge management system is in place to proactively identify and react to changes in SDG-related research needs.

- The **capability to achieve coherence** includes an assessment of whether the SDG graduate school has a mission and vision and a sustainability strategy. It also looks at whether the SDG-GS is incorporated in university structures and possesses its own steering structures (e.g. a steering committee) to ensure continuous development. In terms of research, it takes into account whether the SDG-GS has set up a research framework which defines the SDG-related research objectives, and whether it places an emphasis on interdisciplinary research. In terms of teaching, the capability to achieve coherence examines whether the SDG-GS has written study and examination regulations, and whether it has written study and examination regulations for its study and research programmes at Master’s and PhD level. Finally, it also describes the extent to which SDG-related content and references are incorporated in research and teaching.

The before-and-after comparison of these capabilities was operationalized through a pen-and-paper survey filled out by project personnel as well as selected staff / faculty for the four SDG-GS that were subject to an on-site visit abroad. In this questionnaire, each capability was broken down into several items for which respondents were to submit an assessment (on a scale of 1 to 6) for the capacities at the beginning of the project and at the current moment. Because the Graduate Schools did not exist at the start of the projects, respondents were asked to assess the development of the faculty / institute of the partner university abroad where the SDG-GS is being implemented. The sum of answers for all items associated to a capability was used to form an index of the given capability, allowing for a before-and-after comparison.

Figure 20 shows the results of the Capacity Development Index for all four capabilities aggregated for all four projects. Depending on the capability, on a scale of 1 to 6, the before-and-after difference ranges from 0.76 (capability to adapt and self-renew) to 1.02 (capability to relate). The capability for which the before-and-after difference is highest (capability to relate) is also the capability which had the lowest value for the situation at the beginning of the project (4.20). The assessment of the capabilities at the beginning of the project ranges from 4.20 to 4.48 on the 1 to 6 scale, showing that respondents already perceived the Southern partner institutions to be quite strong. The capacity that was strongest at the outset of the projects from the perspective of the respondents was the capability to act and commit (4.48).

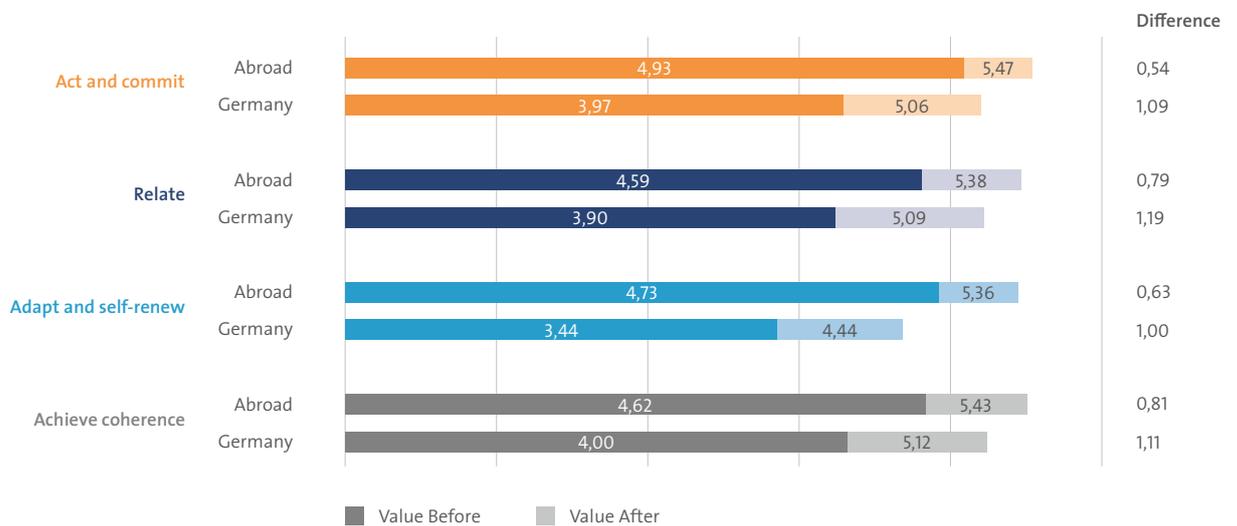
Figure 20
Aggregate CDI results for 4 projects subject to on-site visits abroad



An analysis of CDI results differentiated by responses from German partner universities and universities abroad reveals that partner universities abroad have a more positive perception of their capacities at the outset of the project than their German counterparts (see figure 21). At the same time, the German partner universities see a stronger difference between the situation before the project and the status quo than their counterparts abroad. From the perspective of the

evaluation team, this can be explained by the different roles that the German universities and the universities abroad have in the projects. What both perspectives have in common is that the before-and-after difference regarding the capability to relate⁴² and the capability to achieve coherence⁴³ is rated higher than the before-and-after difference for the capability to act and commit⁴⁴ and the capability to adapt and self-renew.⁴⁵

Figure 21
CDI results differentiated by perceptions from German universities and universities abroad



42 rated 0.79 by partner universities abroad and 1.19 by partner universities in Germany
 43 rated 0.81 by partner universities abroad and 1.11 by partner universities in Germany
 44 rated 0.54 by partner universities abroad and 1.09 by partner universities in Germany
 45 rated 0.63 by partner universities abroad and 1.00 by partner universities in Germany

With regard to the capability to act and commit, the evaluation team observed that applied research and teaching is a strength across all GS. The degree to which the GS are incorporated in university structures, on the other hand, depends from project to project. For some projects, university leadership was well aware of the SDG-GS, whereas in others, it only became aware of the GS because of the evaluation mission. Steering structures for the SDG-GS are in place in all projects. In addition, all projects have a strong focus on interdisciplinary research, which has been described as bringing added value to the capacities of the faculties or institutes where the projects are being implemented. The administrative capacities of the GS only have limited potential to affect the capacities of the partner institutions in the long term, as these are mainly ensured by financing project staff only working on the GS and only for the duration of the project. The introduction of study and examination regulations (in selected projects) however is a long-term contribution to the capacities of the partner institutions, as study offers are expanded and strengthened.

In terms of the capability to relate, the fact that this is the capacity where most changes are seen in the CDI is in line with the positive appreciation networking activities by faculty and scholarship recipients during the interviews conducted, as well as in the online survey. These networks with which the projects work are often not new, but funding for participation in conferences, summer schools and symposia has particularly strengthened academic networks. As networking events with external partners have sometimes been organized at the

4.3.5 UNINTENDED EFFECTS

The strongest unintended effect of the programme that emerged from the interviews conducted is a contribution to networking between academic institutions from the Global South. Many projects have associated scholars from a wider academic network, including from the Global South, to their summer schools. Others have invited visiting scholars from the Global South to deliver lectures and tutor their students or have given scholarship to students from various countries from the Global South. According to the interviewees, the programme's contribution at this level constitutes a considerable added value for the partner universities, as funding for South-South networking is often very limited.

An unintended negative effect cited by scholarship recipients from some projects is that they felt quite a lot of pressure to finish their PhD in a time frame that some of them perceived to be unrealistic. On the one hand, the scholarships are highly appreciated by the students because they are well-endowed and because excellent tutoring is provided. On the other hand, the PhD programmes are perceived as demanding, and a few

partner university in the Global North, this benefits not only the networks of the project, but also of the faculty or institute where it is being implemented.

Looking at the partner institutions' capability to adapt and self-renew, the projects have made a contribution by seeking external input on academic content and research programmes. Academic content developed in the projects is strongly needs- and application based. Quality assurance processes for academic content (e.g. teaching evaluations or processes for approving new courses) were used by the projects when available at the partner institutions, but not developed by them. The two SDG-GS in the natural sciences cover maintenance needs for research equipment for the duration of the projects but solutions that ensure that these needs are covered beyond the project duration are yet to be developed.

In terms of the capability to achieve coherence, all SDG-GS have a clearly defined vision of what they set out to achieve. All GS wish to continue operating on beyond the current DAAD funding. While newly established study programmes are already partly institutionalized, it remains to be addressed how funding for research can be sustained in the long-term. The research frameworks and the interdisciplinarity of the research approach have been jointly elaborated by the German universities and the partner universities abroad and the projects have created an added value by creating awareness about the SDG in their respective institutions.

students expressed that they felt overwhelmed having to finish the programme in the time frame during which the scholarship is running.

A positive effect not explicitly foreseen in the programme's Theory of Change is the contribution to the capacities of the German partner universities beyond acquiring experience in development cooperation. For example, in two projects, stakeholders from the German side have described having been exposed to new approaches of community engagement, which provided inspiration for their teaching.

Finally, another aspect not explicitly foreseen in the programme's Theory of Change, but which came up in several interviews, is a contribution to fostering positive attitudes towards Germany among scholarship recipients. Since the SDG-GS programme reaches academically excellent students, it has the potential to contribute to strengthening ties between Germany and future elites in the partner countries.

4.3.6 ASSESSMENT OF EFFECTIVENESS AND PROJECTED IMPACTS

Overall, the evaluation team comes to a positive assessment of effectiveness. The programme attracts qualified students who are highly satisfied with the quality of the study programmes they get to attend. The effectiveness of individual capacity building is linked to attractive scholarship modalities tailored to the context of each project, as well as through the quality of study programmes offered by the SDG graduate schools.

The study offers developed or revised within the programme are relevant to the SDG and the local context. The contents of the curricula and the didactics have been assessed positively by the professors accompanying the evaluation team during the on-site visits. The only dimension in which the study offers do not always live up to the aspiration formulated in both the programme's Theory of Change and the project proposals is the incorporation of ICT. The use of ICT in the study offers is overall perfunctory. Incorporating ICT in study offers is however also not always a priority of partner universities.

Depending on the academic discipline, the needs in terms of increasing research capacities are highly heterogeneous. The programme gives the projects the flexibility to tailor its measures accordingly. As a result, halfway through the first funding phase of the programme, scholarship recipients and representatives from the partner universities report positive results in terms of increased individual and institutional research capacities. Individual research capacities feed into the institutional research capacities, especially when scholarship recipients act as multipliers, e.g. when they have teaching responsibilities at their home institutions. In addition, the two projects in the natural sciences have considerably strengthened research capacities of the partner universities through the acquisition of research equipment.

Overall, networking with stakeholders outside of academia remains limited, especially given that it is an explicit programme objective. At the same time, in their interactions with stakeholders outside of academia, the projects have chosen foci relevant to the respective discipline. Moreover, while networking with stakeholders from civil society is common, it remains limited in the public sector and the private sector; networking with stakeholders from academia has been very strong. A contribution to South-South networking constitutes a positive unintended effect. Given the focus of the graduate schools on training scholars and strengthening research, academic networking seems at least as relevant as other types of networking in terms of employability of scholarship holders. At the same time, networking with actors outside of academia is an important means of ensuring relevance of research results for public policy, advocacy and industry. Even though this aspect is not explicitly addressed in the Theory of Change, this consideration has guided several of the projects in their networking activities. Yet, there is still untapped potential in this regard, as the research agendas of the projects have not systematically been elaborated in consultation with stakeholders outside of academia.

A year and a half before the end of the first funding period, the projects have already elaborated various strategies on sustainability. These range from submitting funding proposals to other organisations to anchoring study offers in the partner institutions to creating the conditions for long-term use of scientific equipment acquired. The degree to which these strategies are innovative is subject to debate, as the SDG-GS programme has not specified its expectations in this regard. From the perspective of the evaluation team, approaches to sustainability do not necessarily need to be innovative to be valuable.

The aspect on which German universities acquire most competencies in development cooperation through the programme is results-oriented monitoring. They however also acquire thematic and methodological competencies relevant to the area of expertise of each project (e.g. methodologies related to the analysis of social inequality in the trAndeS project), which is not adequately represented in the Theory of Change but represents a positive unintended effect.

The evaluation team further comes to the preliminary assessment that it is plausible that the SDG-GS programme will contribute to the projected impacts.

Scholarship holders have expressed that the programme has strengthened their motivation to work on SDG-related issues in the future, particularly in the higher education sector. They further attest that they have acquired relevant competencies to do so. The professors accompanying the evaluation have echoed this perception and testified to the relevance and quality of the training delivered by the Graduate Schools. While brain drain may constitute a risk, this risk seems limited, as both the programme structure and project implementation create incentives for scholarship recipients to apply their competencies towards development in their home countries or regions.

Some contributions to improved teaching are already anchored in the partner universities as new study offers have been approved by the partner universities. Where relevant, projects are sensitized to ensure investments in scientific infrastructure that will strengthen research capacities in the long run. Lastly, a sizable share of scholarship recipients is interested in pursuing a career at the partner university in the Global South, which would contribute to anchoring acquired research and teaching competencies at institutional level.

The professors associated to the evaluation team assess the level of training and research of the conducted projects as high. An increasing number of applications to the scholarships offered by the different projects speaks to the competitiveness of the Graduate Schools established.

4.4 EFFICIENCY

The criterion efficiency assesses the extent to which resources of the programme are converted to results economically. In this evaluation, the focus of analysis lies on implementation efficiency between DAAD and the projects. For this, the evaluation team has undertaken an analysis of the share of

resources allocated to different types of inputs and puts this into perspective with a qualitative assessment of the extent to which different types of inputs have contributed to achieving intended results.

4.4.1 IMPLEMENTATION EFFICIENCY BETWEEN DAAD AND THE PROJECTS

In the initial agreement between BMZ and DAAD, the programme had been allocated a total budget of €12.4 million for the first funding phase of five years, amounting to an annual budget of €2.5 million. On top of this budget, 13 % were allocated as DAAD administrative lump sum. From the programme budget, 4 % were budgeted for expenses of the DAAD programme section, e.g. related to public relations, monitoring and evaluation or strategy development". The remaining 84 % of the budget, corresponding to a €11.82 million, were foreseen for the projects. This corresponds to a total annual budget of €2.4 million for project funding. The amount foreseen for project funding was complemented by additional BMZ funding that allowed for the selection of a seventh project. The initial financial plans of the seven projects amounted to a total budget of €4.7 million for the two-year period 2016 / 2017, thereby nearly exhausting the amount budgeted by DAAD for project expenses. Financial leeway has been used by DAAD to grant an additional funding request of €150.000 for the year 2016 to the CLIFOOD project.

In 2017, DAAD submitted a request for reallocation of programme funding to BMZ. This request did not bring about changes to the overall funding of €14 million for the five-year funding period but reduced the €2.8 million annual budget for 2016 to €2.3 million and increased the budget for 2017 to €3.3 million. The argumentation provided was that all projects had successfully started, but that because of a delay in getting some projects of the ground, part of the activities planned for the first year had to be deferred to 2017. This led to reduced financing needs for the first year and increased financing needs for the second year, without affecting the remaining three years. The revised budget was approved by BMZ.

With the budget revision, the share of funding allocated to different budget lines was slightly revised, bringing down the share of DAAD expenses to 2 % (from previously 4 %), and increasing the share of the budget allocated to the projects to 86 % (from previously 82 %). This reallocation between DAAD expenses and project budget was mainly made possible by significantly reducing the DAAD budget line for fact-finding missions, as very few universities had made use of the possibility to obtain funding for such missions when elaborating the project proposals. One reason cited for this in the interviews was the short deadline for submitting proposals. In addition, many universities elaborated proposals for projects with part-

ners whom they already knew well, which enabled them to do so without travelling to the partner university.

An analysis of planned vs actual expenditures shows that actual programme spending for 2017 exceeded the revised budget of €3.3 million budget for that year by €222.749. At the same time, the share of funding spent on projects and the share of funding for DAAD expenses corresponds to the revised budget. Looking at the funding transferred to the projects, the projects spent more on project coordination and material resources than anticipated in the programme budget elaborated by DAAD, and less on funding for individuals. These budget changes are however considered normal, as DAAD had to estimate the project funding in its proposal to BMZ before the actual project proposals were submitted. Moreover, changes of up to 20 % within the cost components are within the working parameters of DAAD budget planning.

The projects report a high level of satisfaction with the level of support they receive from DAAD staff. One full-time programme officer and one part-time administrative officer act as the main liaison between DAAD and the projects. In addition, the head of the section is involved in strategic decisions and also represents DAAD in programme and project events. Compared to other DAAD programmes in the field of university development cooperation which fund a higher number of projects, the human resources devoted to the SDG-GS programme allow for a close follow-up of the projects. This is explained by the comparatively high budgets and complexity of the projects funded within this programme.

So far, activities of the DAAD programme staff have included:

- Programme planning, monitoring and reporting according to standards of results-oriented planning (the SDG-GS programme was the first BMZ-funded DAAD programme to be planned taking into account these standards from the very beginning)
- Organization of the project selection by an independent expert committee
- Support to selected projects in translating programme objectives into results-oriented project planning (with external support)

- Organization of a network meeting for all projects at DAAD headquarters for German partner universities and further workshops
- Yearly monitoring meetings to all German partner universities
- Representation of DAAD in project events in Germany and abroad
- Responding to queries of the projects on an ongoing basis

According to the projects, the network meetings organized by DAAD programme staff constitute an added value, as they enabled the projects to better understand the programme, to address questions related to results-oriented planning and monitoring and to administrative issues, and to exchange experiences. Moreover, the projects are very satisfied with the responsiveness of DAAD to day-to-day queries throughout the year. Both swift reactions and the flexibility and constructive approach of the DAAD team in finding solutions were highlighted by several interview partners. In addition, the projects value the interest of DAAD staff in the content of the projects, which is illustrated by its participation in project events in Germany and abroad. According to the interview partners, DAAD

participation is not only gratifying for the project teams, it also contributes to visibility of the projects within the partner universities. Room for improvement with regard to support from DAAD headquarters was only seen with regard to one aspect: several projects expressed that it would be helpful if DAAD could elaborate a compendium of solutions to challenges repeatedly facing DAAD university development cooperation projects. These might include, for example, arrangements for ceding scientific equipment to partner universities abroad without infringing laws regulating subsidies paid for by German taxes.

In addition to their satisfaction with support from DAAD headquarters, projects have also expressed satisfaction with support from DAAD in the partner countries. Support in spreading information about scholarships was mentioned as an example by several projects. Some projects also associate the local DAAD representation in the selection of scholarship recipients to signal independence to applicants. This has proven very useful for one project when an unsuccessful applicant attempted to appeal the decision of the selection committee. Another example mentioned for helpful support by DAAD in the partner countries concerns communication with the German Embassy to ensure swift handling of visa applications of scholarship recipients.

4.4.2 ASSESSMENT OF EFFICIENCY

Overall, the evaluation team comes to a positive assessment of the programme's efficiency. At the level of DAAD, funds not needed at the level of DAAD headquarters have been reallocated to project funding, thereby contributing to the achievement of programme objectives. The support provided by programme staff in organizing network events, in conducting project meetings and in responding to day-to-day queries is highly valued by the projects. Moreover, support provided by DAAD representations in the partner countries also consti-

tutes an added value for the visibility of the projects and to facilitate administrative issues such as the obtainment of visas for scholarship recipients. Minor room for improvement at the level of DAAD can be seen with regard to the compiling of information on recurring administrative issues for the universities and in providing more access to information on administrative issues and results-oriented planning and monitoring for partner universities abroad.

4.5 SUSTAINABILITY

4.5.1 ANALYSIS OF SUSTAINABILITY

As mentioned before, the SDG-GS programme requires the funded projects to come up with financial and strategic approaches to sustainability, yet has not specified expectations in this regard. In this chapter, sustainability will be analysed according to the three categories that have been cited most prominently by the projects when discussing perspectives for the future of the Graduate Schools. These are: sustainability

of academic offers established (institutional sustainability), sustainability with regard to long-term use of scientific equipment purchased (technological sustainability), and identification of alternative funding sources to pursue activities of the SDG Graduate Schools (financial sustainability). In addition, this chapter will briefly discuss the role of DAAD in steering the projects towards sustainability.

In terms of institutional sustainability of academic offers, several of the projects which have developed new study offers have already secured their approval through the partner university. For instance, the Senate of the University of Maiduguri has approved the establishment of the “Centre for the Study and Promotion of Cultural Sustainability” and its Master and PhD programmes in Cultural Sustainability, which have been offered since 2017. Likewise, the new specialization in Urban Management is officially integrated into the offer of the School of Architecture and Planning of Wits University in 2019. The bilateral PhD programme in environmental studies between the University of Bonn and the Universidad Nacional in Bogotá has been accredited by the Faculty of Engineering and Economics and will accept its first intake in the summer semester 2020. The establishment of a double degree Master between the University of Rostock and the University of Hanoi, on the other hand, is still work in progress.

Concerning technological sustainability, the two projects in the natural sciences that have made major investments in the labs of the partner universities abroad, the YaBiNaPa and the RoHan project, have provided ample technical training for the lab personnel at the partner universities abroad to ensure they have the competencies to use the equipment without external support. An issue that is still pending in both projects is a concept for funding costs for lab material and maintenance after DAAD funding runs out.

Eventually, activities to ensure financial sustainability have been implemented. Many projects have submitted funding proposals to other institutions to pursue activities of the SDG

4.5.2 ASSESSMENT OF SUSTAINABILITY

The evaluation team comes to a positive preliminary assessment of sustainability, as a year and a half before the end of the first funding period, the projects already have something to show for in various dimensions of sustainability. Projects have been active in submitting funding proposals to complement DAAD funding, and some of these proposals have been successful and will finance research activities and scholarships. At the same time, it has to be acknowledged that securing alternative third-party funding covering for the scope of what the SDG-DAAD programme supports constitutes a challenge, as the programme is exceptional in its comprehensive approach linking individual and institutional capacity development. While the projects are likely to depend on third-party funding to continue to offer scholarships and conduct research and networking activities, the outlook for the study

Graduate Schools. These include research proposals to the German Research Foundation (DFG) and the German Federal Ministry of Education and Research (BMBF). One project has also submitted a research proposal to a funding line of its partner university abroad, the PUCP in Peru, while another project has applied for funding from a Belgian university. Outside of research proposals, projects have also applied for funding for a foundation for the organization of a symposium, and for Erasmus + funding for additional exchanges of PhDs between both partner institutions. The project that has submitted by far most additional funding proposals is the RoHan project. So far, major proposals that were successful were a BMBF proposal from the RoHan project and the Erasmus + proposal from the WITS-TUB project. While this funding allows the partner universities to continue cooperation, their scope varies. For example, the Erasmus + funding will allow for student mobility beyond the faculties of architecture of WITS and TUB.

While DAAD has not specified its expectations regarding sustainability within the SDG-GS programme, there have been ongoing discussions within DAAD on how to approach sustainability in project funding. An internal working group met several times and discussions on sustainability were held with representatives of projects funded in other programmes. As a result, an internal working paper compiling sustainability approaches in the DAAD Exceed programme has been elaborated. This paper is however confidential and experiences documented therein have not yet been shared to orient the projects funded within the SDG-GS programme in their efforts to achieve sustainability.

offers developed within the programme to be viable without external support is positive. Most newly developed or revised courses, degree programmes or specializations are already officially integrated into the academic offer of the partner universities abroad. Moreover, projects that made major investments in scientific research are conscientious about training lab personnel at the partner universities abroad. Concepts for financing running costs for maintenance and lab material after DAAD funding runs out still need to be fleshed out.

Finally, the evaluation comes to the assessment that DAAD could help the projects meet expectations in terms of sustainability by making it more explicit how DAAD understands the concept, and by providing pointers for implementation.

4.6 COORDINATION, COMPLEMENTARITY AND COHERENCE

4.6.1 ANALYSIS OF COORDINATION, COMPLEMENTARITY AND COHERENCE

The evaluation team analysed coordination, complementarity and coherence at two levels: between the SDG-GS projects, and between the SDG-GS programme and other programmes of (higher education) development cooperation.

Complementarity between the projects has been ensured through a project selection that took into account partnerships with different regions (with a focus on Africa). While this was not a selection criterion, the projects are also from different academic disciplines, and contribute to different SDG. The DAAD programme staff contributes to coherence between the projects by organizing network meetings that allow for exchange and a common understanding of the programme. At the same time, as the chapter on relevance has shown, there is still room for improvement regarding storytelling on the programme that clearly communicates complementarity between the projects by showing which project contributes to which SDG.

Regarding complementarity between the programme and other programmes of (higher education) development cooperation, several projects see synergies with individual scholarships offered by DAAD and other organizations (e.g. the Humboldt Foundation and the Marie Curie Foundation) as the networks of the graduate schools are strengthened when indi-

vidual scholarship recipients study or conduct research at the partner universities of the SDG-GS schools or have occasion to exchange with project stakeholders during conferences. In addition, synergies are seen with BMBF projects in which members of the SDG-GS project teams are involved, as knowledge created in one project can be used in the other project. With regard to synergies with other DAAD programmes, synergies were identified regarding the CLIFOOD project. The University of Hohenheim has received funding both in this programme and in the Exceed programme. Interview partners concurred that this has created synergies, as the CLIFOOD project could make use of the infrastructure, networks and knowledge of the Food Security Centre established within the Exceed programme.

Beyond synergies identified by the projects themselves, DAAD representations in the partner countries act as a door for complementarity and coordination, as they provide the projects with information on recipients of individual scholarships in their academic discipline to open the door for exchange. In addition, DAAD representations in the partner countries have also been helpful in putting scholarship recipients in touch with DAAD offices abroad to which the students were travelling for their field research in case they needed support.

4.6.2 ASSESSMENT OF COORDINATION, COMPLEMENTARITY AND COHERENCE

The evaluation team comes to the assessment that there is a high degree of complementarity between the different SDG-GS, as they cover different academic disciplines and work towards different SDG. Furthermore, DAAD representations abroad contribute to coordination and coherence by making the projects aware of potential synergies with other DAAD funded measures, and by acting as a door-opener for scholarship recipients conducting field research abroad. The

evaluation team further comes to the assessment that there are reasonable synergies between the projects and other programmes of higher education development cooperation. There are synergies with individual scholarships that feed into the network of the SDG-GS, and synergies with other project funding in which stakeholders from the SDG-GS are involved, as knowledge generated in one project can be used by the other project.

4.7 CROSS-CUTTING THEMES

The Terms of Reference for this evaluation stipulated the analysis of several cross-cutting themes:

- (1) The extent to which gender equality is addressed in the projects, and what can be done to ensure and increase equality;
- (2) The extent to which the projects contribute to digitalization of their academic environment;
- (3) The use and added value of results-oriented monitoring at programme and project level.

4.7.1 GENDER

Contribution to gender equality is an implicit objective of the SDG-GS programme, as one of the intended impacts is to contribute to the SDG, and SDG 5 addresses gender equality. In particular, target 5.5 seeks to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life. In addition, target 4.4 linked to SDG 4 (education) calls for equal access for all women and men to affordable and quality education, including university.

At the level of DAAD, the extent to which project proposals address gender equality is one criterion taken into account in the selection of projects. For example, gender equality could be addressed in the process of awarding scholarships, in the selection of faculty or participants to summer schools, in the curricula of study offers, or in the research subjects of the SDG graduate schools. Furthermore, the extent to which gender is taken into account could be ranked on a continuum, ranging from gender negative approaches to gender transformative approaches:

- Gender negative approaches intentionally or unintentionally fall back on existing gender-based stereotypes and discriminations and thereby reinforce these
- Genderblind approaches do not reflect on unequal power structures and gender specific roles and needs and do not address these in project design and implementation
- Gender sensitive approaches address different needs and analyse potential influence on different parts of the population without questioning existing gender roles
- Gender transformative approaches question existing gender roles and attempt to change gender relations and room for manoeuvre of different population groups.

An analysis of the documentation of the selection decision of the projects shows that most projects proposals received a low rating for addressing gender equality. In general, the proposals did not sufficiently analyse gender imbalances and did

not explain how gender equality would be addressed at the level of faculty or in the teaching. This shows that no common understanding of what could be expected in terms of gender existed between the projects, which is linked to a lack of orientation given by the programme in this matter.

When the evaluation team asked the project teams to what extent gender equality was addressed in the implementation of their projects, for most projects the award of scholarships is seen as the most important vehicle to address gender equality. Most projects claimed that they try to guarantee an adequate representation of women when awarding scholarships, but no project had established a quota or formal process for doing so. Rather, this was an aspect to which stakeholders involved in the selection process were sensitized. According to the interview partners, several factors may influence the extent to which gender equality is considered when awarding scholarships. First, the extent to which the partner universities are already sensitized and receptive to gender aspects plays into this. For example, Wits University in South Africa is highly attuned to (gender) equality and has affirmative action measures in place regardless of the project. An adequate representation of men and women at the level is thus easy to implement for the Wits-TUB project. Second, the gender ratio amongst scholarship applicants varies between projects. According to the interview partners of projects in the natural sciences, fewer applications from women reflect that fewer women are enrolled in chemistry, an imbalance that they find hard to redress when awarding scholarships.

An analysis of the gender ratio of scholarship recipients in the different projects once again reveals considerable heterogeneity (see figure 22). The proportion of women among scholarship recipients ranges from 20 % (CLIFOOD) to 66 % (trAndeS). In three out of seven projects, the proportion of women is well below 50 % (RoHan with 33 %, CLIFOOD with 20 %, and YaBiNaPa with 35 %), while it hovers around 50 % for three projects (DSSP with 47 %, Performing Sustainability with 50 %, and Wits-TUB with 51 %). Only in one project are women considerably over-represented (trAndeS with 66 %). Since the number of scholarship recipients varies between the projects, it is also worth looking into the gender ratio of the totality of scholarship recipients funded in the programme: 43 % are female, and 57 % are male.

Figure 22
Gender ratio among scholarship recipients

		Total	Percent
RoHan Rostock / Vietnam	Female	13	32 %
	Male	27	68 %
DSSP Bonn / Colombia	Female	7	47 %
	Male	8	53 %
trAndes FU Berlin / Peru	Female	23	66 %
	Male	12	34 %
CLIFOOD Hohenheim / Ethiopia	Female	3	20 %
	Male	12	80 %
Performing Sustainability Hildesheim / Nigeria / Ghana	Female	9	50 %
	Male	9	50 %
YaBiNaPa Bielefeld / Cameroon	Female	17	35 %
	Male	32	65 %
Wits-TUB TU Berlin / South Africa	Female	18	51 %
	Male	17	49 %
Total All projects	Female	90	43 %
	Male	117	57 %

Source: DAAD Project Reports 2018/19

Since it can indeed be argued that the benchmark for adequate gender representation should vary depending on gender ratio for university students in the given academic discipline or the partner country, the evaluation team has put the information provided above in context. In figure 23, the gender ratio in each project is contrasted with (1) the gender ratio for the overall university population in the partner country⁴⁶ and (2) the gender ratio for university students in the respective subject area at German universities⁴⁷. While these numbers should not be seen as direct benchmarks, as they describe the whole university student population and do not differentiate by degree pursued, they can nonetheless provide some orientation for an assessment of the adequacy of gender representation in the projects. Figure 23 shows that in all but one project (trAndes), the representation of women among scholarship recipients is lower than among the overall university student population

in the partner country (all disciplines) and lower than among university students in the subject area at German universities. While it is reasonable to assume that in some academic disciplines the proportion of women among graduate students is lower than for the overall student population depicted in the table, the context information can still serve as a basis to analyse whether the representation of women is more adequate than in others. In this regard, the table shows that the share of female scholarship recipients is particularly low in the RoHan project (33 % female scholarship recipients in the project, as opposed to 49 % female university students in Vietnam, and 40 % female chemistry students in Germany) and in the CLIFOOD project (20 % female scholarship recipients in the project, as opposed to 32 % female university students in Ethiopia and 49 % agronomy students in Germany).

46 This information has been taken from the DAAD education system profiles and refers to different years depending on the publication of the respective document. For a full list of these references, see bibliography

47 This information comes from the German Federal Statistical Office and refers to the winter semester 2017 / 2018, accessible via: <https://www-genesis.destatis.de/genesis/online/logon?sequenz=tabelleErgebnis&selectionname=21311-0003> (Last accessed May 5, 2019)

Figure 23
Gender ratio among scholarship recipients put in context

		Project	Overall university students partner country	University students in subject area at German universities	
RoHan Rostock / Vietnam	Female	32 %	49 %	40 %	Chemistry
	Male	68 %	51 %	60 %	
DSSP Bonn / Colombia	Female	47 %	53 %	56 %	Social Sciences
	Male	53 %	47 %	44 %	
trAndes FU Berlin / Peru	Female	66 %	52 %	52 %	Social Sciences
	Male	34 %	48 %	48 %	
CLIFOOD Hohenheim / Ethiopia	Female	20 %	32 %	49 %	Agronomy
	Male	80 %	68 %	51 %	
Performing Sustainability Hildesheim / Nigeria / Ghana	Female	50 %	N: 40.21 %	44 %	Political Sciences
	Male	50 %	G: 40.03 % N: 59.79 % G: 59.97 %	56 %	
YaBiNaPa Bielefeld / Cameroon	Female	35 %	42 %	40 %	Chemistry
	Male	65 %	58 %	60 %	
Wits-TUB TU Berlin / South Africa	Female	51 %	58 %	55 %	Architecture
	Male	49 %	42 %	45 %	

Sources: Project reports, DAAD education system country profiles, German Federal Statistical Office

The projects cited only few examples for addressing gender equality in study offers or research subjects. Some projects have provided an overall introduction to the SDG which included SDG 5 during the summer school. In addition, the Per-

forming Sustainability project has two PhD students conducting research addressing gender. This was however something that emanated from the students' interest, rather than something that the project actively steered towards.

4.7.2 ICT

As explained before, only few examples of ICT used in the projects spoke to a strategic use of ICT to strengthen study offers. Most projects mainly used ICT to facilitate communication outside of the classroom, e.g. via Skype, Facebook or Whatsapp. In some projects, ICT has been used to transmit teaching sessions online, but this has remained limited. It is also not a priority of the partner universities abroad, who are often confronted with limited bandwidth. Some projects have used ICT to facilitate virtual network meetings, for project management, and for document management. One project uses ICT to provide scholarship recipients with access to electronic databases relevant to their field of study. Finally, some projects encourage students to use PowerPoint to enhance their digital literacy. Overall however the ICT-use remains limited and projects have sometimes not implemented measures planned for in the proposals (e.g. MOOCs) as these have proven too complex and the universities ended up realizing they lacked the expertise for implementing them. They have also not always proven relevant for the partner universities but were rather included in the project proposals as the call for proposal required the inclusion of ICT. For example, MOOCs were described as not being relevant due to the partly high

specialization of the content, which makes it only interesting for a relatively small amount of learners.

From the perspective of the evaluation team, ICT use could provide an added value for the universities and students involved in the SDG-GS, but only if it is a means to an end, rather than an end in itself. Identifying relevant ICT measures for the projects therefore requires both an assessment of needs in a given context, and an assessment of the feasibility in terms of financial means and ICT competencies of project stakeholders. To facilitate this type of assessment in future programme implementation, the evaluation team offers some reflections on the effects of digital transformation on higher education worldwide and presents some fields of actions that may serve as inspiration for the universities.

Digital transformation leads to a transformation of study offers and needs, of learning formats and supervision, and of universities and university studies. Study offers and needs evolve as there is an increasing possibility to access academic offers online for free. Renowned higher education institutions make study offers accessible online without offering

credit points. Increasingly, learning objectives and learning biographies are defined individually, and there is a need for lifelong learning offers. Learning offers and supervision evolve as social media enables integrating and participatory learning processes worldwide. Peer learning and peer feedback scales the quality of academic teaching. Moreover, modularisation makes flexible individual learning possible, while the relevance of coaching and mentoring increases. At the same time, universities and university studies evolve in various dimensions. Courses are increasingly decoupled from study offers and credits can be obtained for individual building blocks of degree programmes. Lastly, higher education evolves as the social learning dimension has come to complement the acquisition of thematic knowledge.

Against this background, **universities increase their engagement for the learning success of students.** Innovative learning and exam formats and the success of individual learning endeavours call for transparent practices and empirical data as well as for qualitative development of teaching and learning. This digitalization is a key challenge for universities and should not merely be relegated to the realm of technical infrastructure. Measures related to digitalization should therefore also take into account digital support for learning from an administrative perspective. An example for this is that scholarship recipients staying in Germany for a study visit need a student ID to access

databases of the university. This is a measure with little financial cost and high potential impact for research, yet it has not always been taken into account in the SDG-GS projects.

A further consideration with regard to planning ICT measures in the SDG-GS projects is that user comfort and the contribution to increased productivity play a central role for actual efficiency. These aspects should factor into an investment decision in ICT just as much as price and functions, which are often overestimated. Decisions about investments in ICT often only insufficiently factor in follow-up costs for support, training, development in administration.

Figure 28 offers some pointers for possible areas which the SDG-GS projects may explore in the future to enhance digital learning and includes an array of options within these fields of actions. Before deciding upon which type of measure to support, the universities should jointly assess their relevance in the given context. Overall, projects need to decide whether digitalization should encompass only the support structures (such as infrastructure and services) or also core areas (such as a digital learning platform). After having decided on the areas of action, projects need to reflect the inherent options. For example, learning modules can be digitally supported to address thematic, methodological or transversal learning needs, and can be addressed to different target groups (such as students, alumni or faculty members).

Figure 24
Potential areas of action for digitalization in the SDG-GS

	Areas of Action	Options
Core Areas	Digitally Supported Learning Formats	
	1) Thematic	Modules for students
	2) Methodological	Modules for alumni
	3) Transversal	Modules for faculty
Core Areas	Digital Platforms / Channels	
	1) Buy	Digitally supported processes for student administration
	2) Built	Digitally supported processes for alumni management / integration into labour market
	3) Rent	Digital support to teaching events
Support Structures	4) Borrow	Digital tools for project collaboration (including documentation and reflection)
	Resources and Capacities	
	1) Digital literacy for teaching	Domestic project staff
	2) Dig. on-boarding before an exchange	Project staff abroad
	3) Dig. knowledge-base (Wiki, etc.)	Mobility for project staff
	4) Dig. collaboration (e.g. colloquia)	Stays abroad for project staff
	Infrastructure and Services	
1) Bandwidth (e.g. mobile hotspots)	Specialized software and hardware	
2) Media production with accessible tools (e.g. smartphone, digital media)	External service providers for media didactics / production	
3) SaaS / Cloud-based tools		

Source: Felix Seyfarth 2019

4.7.3 RESULTS-ORIENTED MONITORING

DAAD has invested substantial financial and human resources in introducing results-oriented monitoring for its BMZ-financed programmes in recent years, with the support from external consultants⁴⁸. With the introduction of results-oriented monitoring, DAAD seeks to support transparency and accountability towards BMZ, the public and partners in Germany and abroad. It further seeks to improve the achievement of objectives and the implementation of its programmes in dialogue with universities, BMZ and additional partners. In this context, results-oriented monitoring is seen as a means to enable learning and results-oriented steering to enhance the effectiveness of engagement in the field of development cooperation (DAAD 2018).

The SDG-GS programme was **one of the first programmes planned according to new standards for impact-orientation** from the very beginning. Against this background, the use and added value of results-oriented monitoring is one of the cross-cutting issues which were to be analysed in this evaluation.

At **programme level**, DAAD elaborated a Theory of Change for the SDG-GS programme (see chapter 2.2) and defined programme indicators up to the outcome level. These indicators inform reporting on the SDG-GS programme to BMZ (the indicators associated to each outcome are presented in the chapter on effectiveness), but also feed into wider reporting of DAAD on the BMZ portfolio. With the introduction of results-oriented monitoring, DAAD developed a set of key indicators to be used in different programmes (e.g. number of scholarship recipients who graduated, number of curricula developed, number of developed curricula used by partner universities), allowing for aggregation of data collected across programmes.

At **project level**, the universities were asked to develop an results-oriented project plan that differentiates between activities, intended outputs and intended outcomes. The project plans are to be aligned to the programme's Theory of Change but should be more specific with regard to the changes to which the given project seeks to contribute. While the programme's Theory of Change provides the overarching framework, not all projects have to contribute to every output or outcome of this Theory of Change. To make progress towards the projects' objectives measurable, projects further had to elaborate SMART indicators at output and outcome level.

In the **template for the annual reports of the projects**, the universities have to report on both programme and project indicators. This reporting is being done online in a tool that allows DAAD to export quantitative data on programme indicators, including key indicators used across different programmes, into Excel. This makes it possible for DAAD to aggregate data automatically and allows for **targeted analysis of data using**

the Pivot function in Excel. For example, the reporting template contains a section in which universities are to fill out a table of all publications produced in the project, including author, title and type of publication (to be selected from a dropdown menu). The pivot function makes it possible to aggregate data on this question from all seven projects, and, with a few clicks, to see how many conference volumes, non-peer reviewed articles, peer-reviewed articles, etc. were produced in the programme. The same aggregation is possible across different programmes, for any indicator that is used across programmes. Information on project indicators on the other hand cannot be aggregated, as project indicators are specific to each project. The reporting template however asks universities to not only briefly explain in one sentence where progress on each indicator stands, but also to classify progress on each indicator in three categories: on schedule, minor deviations from schedule, or not on schedule (in which case dialogue with DAAD is to be sought). This reporting format allows for a quick **overview of the extent to which projects are on track** to achieve their respective objectives. Furthermore, the reporting template also allows for **narrative explanation** of, amongst others, deviations from the project plan, the development relevance of study offers, the framework planning for research, the involvement of external actors in the projects, as well as approaches towards sustainability.

Since results-oriented monitoring was **a novelty for many universities submitting project proposals**, DAAD worked with an external service provider to support successful applicants in revising their project plans to ensure they met standards of impact-orientation. This offer was well-received by the universities. However, several projects mentioned that it would have been helpful if this coaching had not only been offered to German universities, but also to partner universities abroad. Several German universities stated that they found it difficult to explain standards to their partners abroad that they had only just learned about themselves. A common understanding of the purpose and intricacies of results-oriented monitoring would however have facilitated communication between all project stakeholders involved. In spite of this, universities expressed that they found the results-oriented planning **helpful to guide their discussions on project progress**. Some interview partners however expressed regret that the section foreseen for narrative explanations had become shorter with the introduction of a reporting template that puts a strong emphasis on structured reporting on programme and project indicators. In the view of some interview partners, indicators are a rather rigid instrument that does not adequately capture the complexity of their projects and that restricts adapting project planning when circumstances change. Finally, some interview partners would find it helpful if the online tool could save recurring information to be entered each year (such as project indicators) to save time on reporting.

⁴⁸ Disclosure: team members of this evaluation team were involved in the introduction of impact-oriented M&E for BMZ-funded DAAD projects, albeit not for the SDG-GS programme.

From the **perspective of the DAAD programme team**, planning a call for projects taking into account standards of results-oriented monitoring for the first time represented an additional workload. At the same time, this additional workload was not significant, as there were templates for Theories of Change and indicators from other DAAD programmes⁴⁹. The DAAD programme team sees a substantial **added value** in using these new tools, as they perceive the SDG-GS programme planning to be much more structured than what used to be the case in previous programmes. As a result, they find the planning and the reporting of the projects to be more structured than what they were used to from previous programmes. This in turn helps to better understand what is going on in the project, which facilitates steering, for example during annual planning discussions with each project. It also facilitates reporting to BMZ on the programme.

Both the DAAD programme team and development cooperation section in DAAD's strategy department (S13) feel that one aspect of results-oriented monitoring at programme level still needs to be further discussed with BMZ. BMZ expected DAAD to **set target values for programme indicators** one year after project start if possible. From the perspective of the programme staff, defining target values solely on the basis of project proposals **constitutes a challenge** because the universities are granted flexibility in formulating project specific indicators on the basis of the programme indicators⁵⁰. Therefore, projects would need to define more explicitly to what extent they contribute to the programme indicators. This would however curtail the flexibility of projects in the elaboration of their planning. In addition, looking beyond the SDG-GS programme, the question arises to what extent it is feasible to define target values for programme indicators on the basis of project proposals in the DAAD programmes that have a much higher number of projects.

From the **perspective of the evaluation team**, the introduction of standards for impact-orientation have achieved the objectives defined by DAAD in its monitoring concept (DAAD 2018). At programme level, clear objectives that can be measured through quality indicators have been defined. Aggregation of data from the different projects makes it possible to report on progress towards programme objectives (see chapter on effectiveness). This data is used for accountability towards the funding agency and feeds into strategic dialogue on the future development of the programme. At project level, a clear formulation of programme objectives creates more transparency with regard to the criteria for the selection of the projects. Indeed, the template for the assessment of project proposals explicitly includes a review of the extent to which project proposals feed into the programme objectives and indicators. All

projects were only approved pending a revision of the proposal that took into account requirements in this regard. At the level of the universities, the cooperation between the partners is supported because results-oriented planning supports a common understanding of the project. In this regard, there is however still some room for improvement in terms of explaining the purpose and intricacies of DAAD monitoring to the universities abroad. While project partners abroad have contributed to reporting, several interview partners have expressed that this exercise would have been easier if the template for project reporting had been shared with the universities at the outset of the programme. For the evaluation team, both the results-oriented planning of the projects and the reporting format were very useful to understand the objectives of the projects and progress towards them. Overall the quality of the results-oriented planning of the projects is good. It bears mentioning that in some projects the project description in the proposal is quite close to the contents of the logframe (established after selection of the projects with support from external service providers), whereas in others the project description is not as close to the project proposal. A possible interpretation is that in some cases the quality of the results-oriented planning could only be achieved due to coaching on the logframe.

In addition to these overarching remarks, the evaluation team has the following observations on project planning:

- The types of measures implemented by different projects are quite similar, even if the projects have different foci. However, the projects often formulate indicators that describe similar measures differently. The evaluation team therefore agrees with the DAAD programme team that defining target values for programme indicators on the basis of project proposals is challenging. What is helpful in this regard is a juxtaposition of programme and project indicators, as included in the RoHan proposal.
- In the project proposals, the term “scholarship” is used to describe quite heterogeneous measures. Some proposals already count funding for short-term measures for summer schools as scholarships, whereas in others, scholarships only refer to funding for the entire study period. This is not a problem for aggregating reporting data, as the template for the annual reports defines how DAAD understands the term (funding for 3 months or more). However, a definition of the term through DAAD would be helpful already at proposal stage, as it would make it easier for programme staff and the selection committee to compare the measures foreseen in different projects.

49 The first programmes for which impact-oriented monitoring was introduced at DAAD elaborated Theories of Change, programme indicators and new reporting templates while these programmes were already up and running. The SDG-GS programme is thus one of the first programmes for which standards of results-oriented planning, monitoring and reporting were introduced from the outset of the programme, but other DAAD programmes had been introduced to results-oriented monitoring before.

50 A proposal for target values for the programme indicators was made in autumn 2017 on the basis of the project proposals and the first project reports. The first project reports however still contained little data on project progress as they only covered the period from September to December 2016. A formal modification to the programme proposal and a change of the reporting format was submitted to BMZ in 2018.

- From reading the project proposals, it is not always clear how many individuals receive funding in a given project. Often, proposals indicate how many individuals receive funding for participation in a summer school, and how many individuals receive funding for long-term scholarships, but it is not always explained to what extent beneficiaries for the two types of measures overlap. Including this information would allow for a better understanding of the strategy for individual capacity building in a given project.
- The online reporting format in combination with the possibility to analyse data in Excel through Pivot has proven helpful to analyse progress on the programme indicators. At the same time, the evaluation team would like to point out that this type of analysis not only requires the corresponding Excel skills, it also requires a certain sensitization to data analysis to avoid errors. For example:
 - The template for the annual report asks projects to provide data on some indicators for the reporting year, whereas information on other indicators is to be provided for the whole funding period.
 - The template for the annual report asks projects to provide data on the number of staff members trained in given areas in the reporting year. Since the same individuals may have been trained in consecutive years, the numbers provided in different years cannot necessarily be added to find out the total number of individuals trained in the entire funding period.

Moreover, the evaluation team has the following observations on the added value of results-oriented monitoring for the assessment of progress towards programme objectives:

- Results-oriented monitoring and reporting represented an added value for the evaluation, as it has allowed for a clear understanding of objectives and progress towards objectives at both programme and project level.
- Because a target value was only defined for few programme indicators, target values could not be used as a benchmark against which to assess effectiveness in this evaluation. From the perspective of the evaluation team this has not constituted a major challenge, as an analysis of project proposals and progress on project indicators made it possible to assess to what extent the projects had achieved what they set out to do in a given area. This could then be triangulated with aggregated data on programme indicators for which no target value had been defined to assess the adequacy of progress on the outcomes of the programme.

4.7.4 ASSESSMENT OF CROSS-CUTTING THEMES

The evaluation team considers **gender equality rather unsatisfactorily addressed** in the programme. While addressing gender equality is one criterion for the selection of projects, the selection committee is not given any orientation with regard to what would warrant a high or low rating. In addition, while all projects claim to take into account gender equality in the selection of scholarships, no project provided concrete examples for this. An analysis of the gender ratio among scholarship recipients shows that women are not adequately represented in at least two projects. Moreover, gender equality is not mainstreamed in study offers or research subjects, even if some individual students conduct research that addresses gender.

The **use of ICT** in the programme **has not lived up to its potential**. For the most part, projects have used ICT to facilitate communication outside of the classroom, e.g. via Skype, Facebook or Whatsapp. In some projects, ICT has been used to transmit teaching sessions online, but this was not necessarily a priority of partner universities due to often poor bandwidth. Some

ICT measures foreseen in the project proposals (MOOC) were not implemented as they have proven too complex and the projects ended up realizing they lacked the technical competencies. At the same time, there is potential for harnessing ICT if needs are adequately defined and the relevance and feasibility of measures is adequately reflected between partner universities at proposal stage.

Finally, the evaluation team considers that the introduction of **results-oriented planning, monitoring and reporting** at programme and project level has been a **success** and that the expectations formulated in the DAAD monitoring concept have been met. Both the DAAD programme staff and the projects have stated that it constitutes an added value for their work. At the same time, some universities also perceive the indicators to be rigid, and have voiced that efforts to train the partner universities abroad in this field would be helpful. The evaluation team itself has also found the structured proposals and reporting to be of added value for the evaluation assignment.

5

Conclusions

The SDG-GS programme is **highly relevant** for international and national development agendas. While all projects contribute to SDG 4 (quality education) and further SDG, it is however not always made explicit in external communication which project contributes to which specific SDG. This is a missed opportunity, as concise reference to contents of development agendas is instrumental in articulating the added value of the SDG Graduate Schools beyond the given academic discipline.

In addition to being relevant to development agendas, the programme also corresponds to the needs of the partner countries, partner universities and individual beneficiaries. A **strength** of the programme lies in its **flexible bottom-up approach**, in which participating universities from Germany and abroad jointly develop a tailor-made project design that addresses context-specific needs. In terms of **institutional capacity building**, the focus on strengthening research and contributing to build up the pool of faculty is not only relevant for currently funded projects, but potentially also for other partner countries of German development cooperation. This relevance stems from a lack of qualified lecturers and a focus on education at the expense of research that is common in the higher education system of developing countries. In terms of **individual capacity building**, the combination of high-quality study offers and funding for the studies makes the programme very relevant for scholarship recipients. The evaluation has shown that the target groups for individuals scholarships in the SDG-GS programme (Master, PhD and Postdocs) go beyond what is commonly understood as the target group of a Graduate School or the German *Graduiertenschule* and *Graduiertenkolleg* (all terms are used with reference to the programme, yet they describe different concepts). At the same time, the funding of all groups is highly relevant. Through the academic support and access to international networks with renowned scholars, students and researchers benefit from cross-pollination of ideas and get an edge in producing quality research output. This increases chances for publishing in international journals. As this is beneficial for the standing of the partner universities, the relevance of **individual and institutional capacity development is closely intertwined**.

A year and a half before the end of the first funding phase, the programme already has **promising results to show for** in terms of institutional and individual capacity building. The programme **attracts qualified students** who are highly satisfied with the quality of the study programmes they get to attend. Selecting the academically strongest candidates for scholarships contributes to making the programme highly relevant to the partner universities. At the same time, due to structural inequalities with regard to access to primary and secondary education in partner countries of German development cooperation, there can be a **challenge in reconciling academic excellence and equitable access to opportunities in higher education**. In addition, the evaluation team has identified a weakness regarding **gender equality**. DAAD provides no orientation as to what is expected from the projects in this

regard. The projects' understanding of gender equality seldom goes beyond intending to have an adequate number of female scholarship recipients. An analysis of the gender ratio among scholarship recipients shows that women are not adequately represented in at least two projects.

The **study offers developed or revised** within the programme are of **high quality and relevant to the SDG and the local context**. The contents of the curricula and the didactics have been assessed positively by the professors accompanying the evaluation team during the on-site visits. The only dimension in which the study offers do not always live up to the aspiration formulated in both the programme's Theory of Change and the project proposals is the incorporation of ICT. The use of ICT in the study offers is overall perfunctory. Incorporating ICT in study offers is however also not always a priority of partner universities, and expectations regarding the use of ICT have not been defined by either BMZ or DAAD.

Some contributions to improved teaching are **already institutionally anchored** as **new study offers** have been approved by the partner universities, a **strength** in terms of **sustainability**. The projects that were already successful in getting their study offers officially integrated into the programme of the partner universities were those that had explored corresponding requirements at the partner universities early on. Moreover, projects that made major investments in scientific research are conscientious about training lab personnel at the partner universities abroad. Concepts for financing running costs for maintenance and lab material after DAAD funding runs out still need to be fleshed out. An element that bodes well for sustainability is that the projects are active in submitting funding proposals to complement DAAD funding, and some of these proposals have been successful and will finance research activities and scholarships. At the same time, it has to be acknowledged that securing alternative third-party funding covering for the scope and volume of what the SDG-DAAD programme supports constitutes a challenge, as the programme is exceptional in its comprehensive approach linking individual and institutional capacity development. Against this background, DAAD has not specified its expectations in terms of sustainability to the projects funded within the SDG-GS programme.

Depending on the academic discipline, the needs in terms of increasing research capacities are highly heterogeneous. Overall, scholarship recipients and representatives from the partner universities report **positive results in terms of increased individual and institutional research capacities**. Individual research capacities feed into the institutional research capacities, especially when scholarship recipients act as multipliers, e.g. when they have teaching responsibilities at their home institutions. In addition, the two projects in the natural sciences have considerably strengthened research capacities of the partner universities through the acquisition of research equipment.

While networking with stakeholders from civil society, the public sector and the private sector remains limited, **networking with stakeholders from academia** has been very strong, even though it is not an explicit objective of the programme. A contribution to **South-South networking** constitutes a **positive unintended effect**. Given the focus of the graduate schools on training scholars and strengthening research, academic networking seems at least as relevant as other types of networking in terms of employability of scholarship holders.

The programme is being **run efficiently** both between DAAD and the projects and within the projects. The support provided by programme staff in organizing network events, in conducting project visits and in responding to day-to-day queries is highly valued by the projects. Minor room for improvement

at the level of DAAD can be seen with regard to the compiling of information on recurring administrative issues for the universities and in providing more access to information on administrative issues and results-oriented planning and monitoring for partner universities abroad. At project level, all projects are largely on track to fulfil their objectives and indicators. The introduction of **results-oriented planning, monitoring and reporting** at programme and project level has been a success. Both the DAAD programme staff and the projects have stated that it constitutes an added value for their work. At the same time, some universities also perceive the indicators to be rigid. The evaluation has identified the **commitment of project coordinators in Germany and abroad** as a success factor for implementation efficiency, as the partnerships involve a lot of give-and-take that cannot always be planned for in advance.

6

Recommendations

6.1 RECOMMENDATIONS TO BMZ

6.2 RECOMMENDATIONS TO DAAD AND BMZ

6.3 RECOMMENDATIONS TO DAAD

6.1 RECOMMENDATIONS TO BMZ

Recommendation 1: The BMZ should continue to fund the programme. In a second funding phase the budget should be increased to fund additional projects.

The evaluation has shown that the programme is relevant with regard to international and national development agendas. It is strongly in line with the needs of the partner countries, partner universities and individual beneficiaries. In the first funding phase, the programme has already promising results to show for in terms of individual and institutional ca-

capacity building. The focus on strengthening research and contributing to build up the pool of faculty is potentially relevant for other partner countries of German development cooperation, as a lack of qualified lecturers and a focus on education at the expense of research is a phenomenon common in the higher education systems of developing countries. Since the potential for capacity development through the programme partly stems from the length and volume of the funding, an expansion of the programme to include more projects should not curtail the budget for the current projects.

6.2 RECOMMENDATIONS TO DAAD AND BMZ

Recommendation 2: DAAD should engage in dialogue with BMZ and the universities to plan for more realistic and context-relevant ICT measures in the projects.

The evaluation has shown that neither BMZ nor DAAD have defined expectations regarding the use of ICT in the projects. Some universities have translated the requirement to incorporate ICT into very ambitious measures in the project proposals which have, in some cases, turned out to not to be feasible or

to be of limited relevance to the partners abroad. DAAD should therefore engage in dialogue with the BMZ to discuss realistic expectations regarding the use of ICT in the context of higher education development cooperation projects. DAAD should further communicate expectations in terms of incorporating ICT to the universities abroad. Moreover, DAAD should also ask universities to reflect the relevance and feasibility of planned ICT measures in the project proposals, for example in terms of personnel, technical and professional needs.

6.3 RECOMMENDATIONS TO DAAD

Recommendation 3: DAAD should be more explicit about the rationale for funding Master and Postdoc scholarships within the Graduate Schools.

The evaluation has shown that the target groups for individual scholarships in the SDG-GS programme (Master, PhD and Postdocs) go beyond what is commonly understood as the target group of a Graduate School or the German Graduiertenschule and Graduiertenkolleg (all terms are used with reference to the programme, yet they describe different concepts). At the same time, the funding of all groups is highly relevant. The strength of the programme lies in the flexible approach in which each project decides what to prioritize depending on the context. In future calls for projects, DAAD should therefore explicitly address that the scholarships offered within the programme go beyond the prevalent understanding of Graduate School / Graduiertenkolleg / Graduiertenschule, and why. In this regard, scholarships should explicitly be tied to strengthening research capacities in the partner countries and offering young scholars perspectives in academia to strengthen the higher education sector of partner countries.

Recommendation 4: The projects and the programme should convey the contribution to specific SDG.

The evaluation has shown that the projects and the programme are relevant for the SDG. At the same time, the project proposals and the external communication of the projects do not systematically convey which project contributes to which SDG. The external marketing of the programme does not communicate this. This constitutes a missed opportunity, because the evaluation has also shown that a concise reference to contents of development agendas is instrumental in articulating the added value of the Graduate Schools beyond the given academic discipline. DAAD should therefore ask the universities to briefly explain in the project proposals to which specific SDG a project seeks to contribute (short explanation of 1 – 2 sentences for each SDG chosen). DAAD should further encourage the universities to convey their contribution to specific SDG in their external communication. Finally, DAAD itself should use this information for communicating how the projects jointly contribute to an added value for development.

Recommendation 5: Networking between academic stakeholders, including stakeholders from the Global South, should explicitly be integrated into the programme's Theory of Change. For a possible second funding phase of the projects, expanding the cooperation to multilateral partnerships should more explicitly be an option (maximum of three partners, out of which two should be from the Global South)

The evaluation has shown that academic networking is a strength of the programme even if it is not an explicit objective. In addition to contributing to the North-South exchange between the German partner universities and their counterparts abroad, the programme has also created added value by linking up academics from the Global South. In addition to the benefit for individual scholars, this strengthens the visibility of universities from emerging or developing countries. This contributes to overcome a reductionist understanding of international higher education cooperation as mere North-South knowledge transfer. Networking between academic stakeholders, including stakeholders from the Global South, should therefore be integrated into the programme's Theory of Change. For a possible second funding phase of the projects, it should be an explicit option to expand the existing cooperation to multilateral partnerships. To still be able to contribute to strengthening institutional capacities structurally, a maximum of three universities should be official partners, two of which should come from the Global South. All universities should have clearly defined roles in the partnership and the selection of partner universities should be based on strategic reasons.

Recommendation 6: DAAD should ask projects that intend to establish new study offers to explain in the project proposals to what extent requirements for the recognition of these new study offers by the partner universities have been analysed.

The evaluation has identified two success factors for structurally anchoring newly established study offers at the partner universities. The first success factor was that the establishment of a new study offer had been a priority of the partner university / faculty regardless of DAAD funding. Second, the projects that were successful in getting their study offers officially integrated into the programme of the partner universities were those that had explored corresponding requirements at the partner universities early on. DAAD should therefore ask projects that intend to establish new study offers to explain in the project proposals to what extent requirements for the recognition of these new study offers have been analysed.

Recommendation 7: DAAD should increasingly offer formats for knowledge transfer on project administration and results-oriented monitoring to the partners abroad.

The evaluation has shown that DAAD primarily transmits information on administrative requirements and on results-oriented monitoring to the German partner universities. A lack of information on the side of the partner universities abroad sometimes adversely affects implementation efficiency of the projects. DAAD should therefore increasingly offer formats for knowledge transfer on these issues to the partner universities abroad. Options could include:

- The translation of existing guidelines into English
- The elaboration of FAQs in English
- Offering a regular online information session with Q&A (e.g. once a month) in the first months of a funding period
- Addressing these aspects at a network meeting of German universities and partner universities abroad at the beginning of a funding phase. If this option is chosen, benefits should be carefully weighed against additional costs this would incur.

Recommendation 8: DAAD should communicate more explicitly towards the universities that there is flexibility to adapt initial project planning, as long as modifications are justified and explained.

The evaluation has shown that the universities perceive the results-oriented planning and monitoring as useful for steering the projects. At the same time, some universities also perceive the indicators as a rather rigid instrument that restricts possibilities for adapting project planning when circumstances evolve. DAAD should therefore communicate more explicitly towards the universities that there is flexibility to adapt initial project planning, as long as modifications are justified and explained.

Recommendation 9: DAAD should elaborate a concept that articulates its expectations in terms of sustainability and communicate these expectations to the universities.

The evaluation has shown that DAAD has not specified its expectations in terms of sustainability to the projects funded within the SDG-GS programme. At the same time, there have been ongoing discussions within DAAD on how to approach sustainability within project funding. In addition, an internal working paper compiling sustainability approaches from the DAAD Exceed programme already exists. DAAD should take these efforts one step further and produce a concept that can be shared with stakeholders of the SDG-GS programme for orientation.

Recommendation 10: DAAD should position itself regarding the extent to which it would like projects to take into account socio-economic criteria in the selection of scholarship recipients in addition to academic criteria. Due to the heterogeneity of contexts in which the programme is being implemented, standardised requirements or quota should be avoided. Instead, projects should be encouraged to explain how their processes take into account the "Leave no one behind" principle of the 2030 Agenda.

The evaluation has shown that there can be a trade-off promoting equitable access to opportunities in higher education, e.g. by taking into account socio-economic criteria when awarding scholarships, and the selection of the academically strongest candidates. This is due to structural inequalities with regard to access to primary and secondary education in partner countries of German development cooperation. The evaluation has further shown that the relevance of the programme can only be guaranteed if it aims for academic excellence. At the same time, a contribution to relevance from a development perspective could be made if in addition to academic criteria, socio-economic criteria are also taken into account in the selection of scholarship recipients. DAAD should therefore position itself on what it expects from the projects in this matter. Due to the heterogeneity of contexts in which the programme is being implemented, standardised requirements or quota should be avoided. Instead, projects should be encouraged to explain how their processes take into account the "Leave no one behind" principle of the 2030 Agenda.

Recommendation 11: DAAD should define its aspiration level regarding contributions to gender equality in the SDG-GS programme.

The evaluation has shown that DAAD provides no orientation with regard to what is expected from the projects in terms of contribution to gender equality, although gender equality and empowerment of all women and girls is one of the 17 SDG (SDG 5). The projects' understanding of gender equality seldom goes beyond intending to have an adequate number of female scholarship recipients. An analysis of the gender ratio among scholarship recipients shows that women are not adequately represented in at least two projects. To ensure that gender equality is more comprehensively addressed in the future, DAAD should define its aspiration level regarding contributions to gender equality in the SDG-Gs programme. Possible elements of an approach to gender equality might include:

- Processes for sensitizing all project stakeholders on gender equality
- Mainstreaming gender equality into research agendas or study offers
- Ensuring an adequate gender balance in scholarships (e.g. definition of a project-specific target corridor taking into account the gender ratio for the respective academic discipline for the partner university abroad).
- Ensuring an adequate gender balance amongst faculty
- Ensuring an adequate gender balance amongst participants of summer schools

Recommendation 12: DAAD should encourage the projects to offer incentives for the career development of junior staff involved in project coordination in Germany and abroad to limit the risk of employee turnover.

The evaluation has identified the commitment of project coordinators in Germany and abroad as a success factor for implementation efficiency, as the partnerships involve a lot of give-and-take that cannot always be planned for in advance. DAAD should therefore encourage the projects to offer incentives for the career development of junior staff involved in project coordination in Germany and abroad to limit the risk of employee turnover.

