

# Building Stronger Universities (BSU), Phase III

## Key results:

Through partnerships with Danish universities, the programme aims at increasing the capacity of six African universities in terms of their teaching, research and outreach, within specific thematic areas. The results planned for include, inter alia:

- Improved general university services in terms of management and administrative systems.
- New library facilities and improved e-learning platforms in four universities.
- 17 PhD or Master courses are developed/ revised and implemented.
- 16 thematic research groups established and functional,
- Improved laboratory facilities in five universities.
- Improved systems of management of research linkages with external stakeholders in four universities.
- 21 PhD graduated (at least 40% women) within the focus thematic areas.
- African researchers involved in BSU supported research teams have enhanced their level of publication and their international research engagement.

## Justification for support.

- Strong universities are important partners in national development by providing highly qualified youth and new, locally relevant knowledge to society.
- BSU has an added value compared to competitive research grants with its focus on capacity development through university-to-university cooperation including both thematic research areas and university-wide services.
- Danish universities consider the long-term partnerships with African universities strategically important, not least in relation to development research.

## How will we ensure results and monitor progress

- Continue to ensure partner university ownership and strengthen their capacity to manage international collaboration projects.
- Danida Fellowship Centre (DFC) will undertake close administrative follow-up to partner universities.
- Short-term TA in the inception phase and at mid-term to assist universities in adjusting course where necessary.
- DFC will report to MFA according to overall results framework.

## Risk and challenges

Being a continuation of BSU Phase 2 that has served as "proof of concept", the implementation risks are not considered major. However, there are several risks to be observed during implementation in order to ensure sustainability and overall results, including the risks that:

- BSU at university level operates in isolation from other processes,
- incentives for participating researchers do not remain strong enough for them to continue their engagement.

<b>File No.</b>	104.Dan.8.L.2600.					
<b>Country</b>	Ghana, Uganda and Tanzania					
<b>Responsible Unit</b>	Evaluation and Research (EVAL)					
<b>Sector</b>	Research/Scientific institutions (DAC code 43082)					
<i>Mill.</i>	2017	2018	2019	2020	2021	Tot.
<b>Commitment</b>	90					90
<b>Projected ann. Disb.</b>	5.9	19.65	22.95	23.65	17.85	90
<b>Duration</b>	4 years					
<b>Finance Act code.</b>	06.38.02.19. Forsknings Samarbejde					
<b>Desk officer</b>	Lars Christian Oxe					
<b>Financial officer</b>	Gitte Bruus					

## SDGs relevant for Programme [Maximum 5]



## Budget (million DKK)

Building Stronger Universities, Phase III	
<i>Gulu University, Uganda</i>	10
<i>Sokoine University of Agriculture, Tanzania</i>	13
<i>Kilimanjaro Christian Medical University College, Tanzania</i>	13
<i>State University of Zanzibar, Tanzania</i>	13
<i>Kwame Nkrumah University of Science and Technology, Ghana</i>	13
<i>University of Ghana</i>	13
<b>Programme Support</b>	<b>6</b>
<b>Unallocated funds</b>	<b>9</b>
<b>Total</b>	<b>90</b>

## Strat. objective(s)

African universities have enhanced their role as providers of education and research and their outreach to society.

## Thematic Objectives

BSU III will contribute to i) enhanced learning and graduation, ii) more and better organised research, iii) more university interaction with the private and public sector.

## List of Engagement/Partners

– See list of partnering African universities in the budget above.

# **Building Stronger Universities, Phase III 2017-2021**

## **Programme Document**

**August 2017**

Evaluation Department  
Ministry of Foreign Affairs/Danida  
Denmark

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### Annexes not included in this volume:

- Annex 4: Partnership Proposal, Gulu University (GU)
- Annex 5: Partnership Proposal, Sokoine University of Agriculture (SUA)
- Annex 6: Partnership Proposal, Kilimanjaro Christian Medical University College (KCMUC)
- Annex 7: Partnership Proposal, State University of Zanzibar (SUZA)
- Annex 8: Partnership Proposal, Kwame Nkrumah University of Science and Technology (KNUST)
- Annex 9: Partnership Proposal, University of Ghana (UG)
- Annex 10: Climate Change and Green Growth Screening Note
- Annex 11: Human Rights Based Approach/Gender Screening Note

## 1. Introduction

Building Stronger Universities (BSU) aims at increasing the capacity of African universities in terms of their teaching, research and outreach. BSU supports collaboration between the six participating universities in Tanzania (3), Uganda(1) and Ghana (2)<sup>1</sup> and consortia of Danish universities within specific thematic areas. This document presents phase 3 of the Building Stronger Universities (BSU) programme. BSU Phase 1 started in 2011, BSU Phase 2 started in 2014, and BSU Phase 3 will run from 2017-2021. The six partnerships are described in partnership proposals prepared by the universities and annexed to this document.

BSU phase 3 builds on lessons learned from BSU phase 2, consolidates results and focuses on fewer thematic science areas. It also adds emphasis on the capacity of the Southern universities to perform outreach, engage with a variety of stakeholders and encourage uptake of research results relevant to growth and development. The key principle of Southern leader- and ownership of the partnerships has been maintained. Implementation and monitoring of the BSU programme will be delegated to Danida Fellowship Centre (DFC).

Following the appropriation of the programme, the partnering universities will prepare detailed implementation plans, budgets and revised results framework. Implementation is planned to start October 2017 and last for four years.

## 2. Thematic, Regional and Country Context

### *2.1 Despite progress, research is still lagging behind in Sub Saharan Africa*

To thrive in an increasingly knowledge-based global economy, countries need academic institutions conducting research and providing research-based education. Research provides new technology and knowledge, and can contribute with practical solutions to development challenges. Graduates with relevant skills for employment and entrepreneurship boost productivity and growth.

Over the last two decades, education in Africa has seen notable gains in the number of children and young people accessing schooling at all levels, but only 7% reaches the tertiary level, and tertiary enrolment in Africa continues to be dominated by the humanities and social sciences.

Spending on research in Sub-Saharan Africa as percentage of GDP has increased around 14% over the last 20 years, but this is significant less than the world increase of 20% in the same period, and spending remains at a paltry 0.4% of GDP, only trailed by Central Asia and the Arab States<sup>2</sup>. International funding remains essential and is estimated to constitute half of the overall funding for research and development activities. The quality of university education and research remains a challenge, and no Sub-Saharan African universities (excluding South Africa) appear in the higher end of international rankings<sup>3</sup>.

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<sup>1</sup> The participating African universities are: University of Ghana; Kwame Nkrumah University of Science and Technology, Ghana; Sokoine University of Agriculture, Tanzania; Kilimanjaro Christian Medical University College, Tanzania; State University of Zanzibar, Tanzania; Gulu University, Uganda

<sup>2</sup> Data extracted from <http://data.uis.unesco.org/> on February 7, 2017.

<sup>3</sup> World Bank and Elsevier, 2104: A Decade of Development in Sub-Saharan African Science, Technology, Engineering & Mathematics Research.

In June 2014, the African Union adopted a Science, Technology and Innovation Strategy for Africa<sup>4</sup>. It aims to accelerate Africa's transition to an innovation-led, knowledge-based economy, and envisages improving science, technology and innovation readiness in Africa in terms of infrastructure, professional and technical competence, and entrepreneurial capacity. Furthermore, it involves implementing specific policies and programmes in science, technology and innovation that address societal needs in a holistic and sustainable way.

The partner countries for BSU Phase 3, Ghana, Tanzania and Uganda, have increased their spending on research more than the Sub-Saharan African average. Tanzania and Uganda spend a bit more than the average (0.5% of GDP), while the latest data for Ghana (2010) indicated 0.4% of GDP. All the countries have science, technology and innovation strategies emphasizing the importance of knowledge, innovation, research and research-based education, and they all maintain their commitment in the Lagos Plan of Action from 2007 to increase spending on research to 1% of GDP<sup>5</sup>.

Even with increased spending, the absolute amounts available for research in the three countries are extremely small, also in Ghana, which has attained middle-income status. The amount for research per capita is between 7-15 USD annually. By comparison it is not less than around 1400 USD in Denmark, or 100-200 times bigger<sup>6</sup>. The countries are therefore continuing to seek international funding and assistance, and they are also beginning to exploit research funding through partnerships with the private sector. Broader programmatic approaches where multiple donors align behind a government-led programme for science, technology and innovation development at national level have not been established in the three countries, presumably also because of concerns about respecting the autonomy and arms-length to governments that universities need to pursue academic work freely. However, all three countries have national level ministries or commissions for tertiary education and/or research, which play significant roles in nationwide development of science, technology and innovation.

Apart from the dearth of funding, the challenges faced by the sector vary from country to country and between individual universities, which are at very different stages of development. A common challenge to the participating universities is the quality of teaching, which is often textbook- and root-based, rather than problem-based or oriented by research. The majority of staff in many universities still have only Master-level degrees and little actual research competence, and the staff with PhD have little opportunity to continue their involvement in research. Infrastructure, in particular digital infrastructure, is often a constraint, and administrative processes that should underpin teaching and research – financial management, procurement, student management – are often weak. Systems and procedures for Master and PhD student supervision are insufficient and effective management is under the prevailing resource conditions extremely challenging.

Basic principles of non-discrimination are observed in the partnering universities. A better gender equality among students and employees is a goal across the board of universities in Tanzania, Uganda and Ghana, but there is a long way to go before there will be a reasonable gender balance.

Despite the gains over the last decades in the three countries, research and university graduates are not satisfying the demands from society and economy, and accelerating the progress has potentially strong, positive effects on development. Funds alone will not ensure this acceleration – the universities need partnerships that can help them to improve the quality of research, research-based teaching and outreach.

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<sup>4</sup> African Union Commission, 2014: Science, Technology and Innovation Strategy for Africa 2024.

<sup>5</sup> Government of Ghana, 2010: National Science Technology and Innovation Policy; COSTECH/Tanzania, 2016: Research Priorities for Tanzania 2015-2020; Republic of Uganda, 2009: National Science Technology and Innovation Policy.

<sup>6</sup> Data extracted from <http://data.uis.unesco.org/> on February 7, 2017. Data are not from the same years.

## ***2.2 Research is a priority in Danish development cooperation***

The Danish Strategy for Development Cooperation “The World 2030” adopted in January 2017 envisages strengthening research cooperation between Danish and Southern research institutions, with the aim of finding solutions to development problems in new knowledge and approaches, as well as increasing the capacity of the countries to generate and apply new knowledge.

The Danish emphasis on both partnerships and research points to the relevance of research collaboration that also aims at including e.g. authorities, private sector actors, communities and civil society. Triple helix partnerships between research institutions and public and private actors can explore synergies and ensure that research results are particularly relevant to promote sustainable growth.

Young people must be given the opportunity to enhance their participation and influence in society as involved, committed and equal actors with the ability and opportunity to take development into their own hands. Strengthening tertiary education contributes to this overall goal and Danish commitments in this area. BSU Phase 2 managed to a large extent to further female participation in BSU-funded activities among PhD students and researcher. BSU Phase 3 will continue this attention to gender equality by applying specific gender targets.

In addition to the BSU programme described in this document the Danish Ministry of Foreign Affairs provides support to research projects funded on a competitive basis under the Consultative Committee for Danish Development Research (so-called FFU projects). These FFU projects are undertaken in partnership between Danish universities and research institutions in partner countries. Joint research projects between Danish and Southern researchers have a long history and have created lasting institutional and individual partnerships in thematic areas such as transitional justice and reconciliation; reproductive health; malaria research; agriculture; climate change; business development and environmental health and management.

## ***2.3 Clear opportunities for synergies with other Danish engagements in BSU partner countries***

In the three BSU partner countries, the BSU partnerships play a different role in the Danish cooperation and provide different opportunities for synergy with other Danish activities.

In Ghana, Denmark’s cooperation is transitioning from classic broad development support to a cooperation focusing on shared political and economic interests. A key priority area is private sector development and green growth, and a long-standing development cooperation in the health sector has made Denmark known for its competences within this field. Research plays an important role in the transitioning from aid by continuing a knowledge-based partnership within Danish competence areas, and it is expected that research will inform the strategic objectives underpinning the new partnership.<sup>7</sup> The two BSU partner universities in Ghana are both focusing on thematic areas immediately relevant to the Danish-Ghanaian agenda, including Climate Smart Agriculture, Entrepreneurship and Innovation, Climate Change and Health. BSU Phase 3 is thus expected to make a significant contribution to the new strategy for cooperation between Denmark and Ghana.

In Tanzania, the Danish cooperation focuses on the health sector, the agricultural sector, good governance and human rights and regional peace and stability<sup>8</sup>. The three BSU partner universities fit very well into these areas, with a strong focus on health, not least reproductive health; agriculture and agro-business; and environmental health, also with a strong orientation towards triple helix partnerships with social, economic and public sector stakeholders.

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<sup>7</sup> Danida, 2014: Denmark-Ghana. Partnership Policy, 2014-2018.

<sup>8</sup> Danida, 2014: Denmark-Tanzania: Country Policy Paper 2014-2018

In Uganda, the future Danish cooperation<sup>9</sup> will focus on economic inclusion, political inclusion and regional stability, with a particular focus on the fragile Northern Uganda, neighbour to war-torn South Sudan, and still marked by the decade long insurgency of the Lord's Resistance Army. The BSU-partner in Uganda, Gulu University, is placed in this region, and the thematic focus areas include transition in education as a means to overcome fragility, and rights, resources and gender in post-war development. Direct links to emerging Danish cooperation with traditional and religious leaders in Northern Uganda will be explored.

### ***2.4 BSU Phase 1 and 2 lessons provide a solid foundation for BSU Phase 3***

The Building Stronger Universities programme was initiated in 2011 as collaboration between Danish universities and 11 institutions in five countries (Tanzania, Ghana, Uganda, Kenya and Nepal) organised around four thematic platforms. With a budget of DKK 60 million for two years, the programme focused especially on strengthening PhD education, but included some faculty staff exchanges as well. The programme largely met its targets, but an independent evaluation in 2013 found that, at least for some of the thematic platforms, there was a risk of low sustainability due to missing ownership in the Southern partner universities, and that administrative costs were too high.

In the second phase of the BSU programme (2014-2017), the university partners from Ghana, Tanzania, Uganda and Nepal prepared project outlines based on which they were matched with Danish university consortia. BSU Phase 2 results and activities were to a large extent defined by the Southern universities, which also took administrative lead of the programme. The Southern-led feature of BSU is highly appreciated by the Southern partners who uniformly underline that this gives them a strong ownership of the programme.

With a budget of DKK 100 million, BSU Phase 2 has included funding of a range of research capacity building activities within both specific thematic topics (e.g. in health, agriculture, environment, social sciences) and university-wide administrative issues such as facilities and regulations for PhD students; financial and grant management systems; and access to literature. Some delays in implementation have occurred, and the project period has been extended until September 2017.

In terms of outcomes, there are already clear and convincing achievements. In the area of strengthened research policies, strategies, organisation and research processes there are new courses with research-relevant content being offered by the African universities to PhD and Master-students. Research proposals have been prepared and research have been published in peer-reviewed journals<sup>10</sup>. In addition, emerging research groups are adopting new approaches to and focus of their research, including through outreach. In the outcome area of strengthened university-wide services and facilities to support research, there have been multiple achievements in improving capacities and performance (e.g. laboratories, libraries, financial management, PhD facilities), although several of these improvements have not yet been fully put into use.

The BSU programme is unique compared to most other international cooperation aiming at better and more research, because it consistently focuses on developing the capacity of the universities to carry out research-based teaching, do research and reach out to societal actors. Most other programmes focus either on research proper, or on offering PhD or master degrees to individuals. BSU focuses on both research administrative and support aspects, curricula development that embeds research in

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<sup>9</sup> Danida, 2017: Denmark-Uganda, Country Policy Paper, 2018-2022.

<sup>10</sup> Students attending new courses, research proposals funded and manuscripts accepted for publications were identified as indicators of outcome achievement in BSU Phase 2.

postgraduate teaching, and on building up research organisations at department or institute level which can act as models beyond the chosen scientific theme, and which has outreach built into the approaches to research. By focusing on relatively few thematic themes these varied and multiple aspects, which are all integral and necessary elements of developing capacity, have largely been brought together.

In the overall development of most of the participating universities, BSU Phase 2 may be a modest contribution, but BSU Phase 2 has served as a “proof of concept” and provided expectations that a continued university-to-university partnership can make a difference by strengthening local capacities.

Key lessons from BSU Phase 2 of relevance from BSU Phase 3 include:

- BSU has from the beginning recognised that capacity development and university partnerships are longer-term endeavours. It has allowed to “hurry slowly”, and keep ambitions level realistic – without losing sight of the longer-term goals.
- The Southern leadership has generated considerable ownership and motivation. Alignment with university priorities has eased bringing BSU into the pertinent university structures and adapted the programme to the highly-varied situations in the partner universities.
- The peer-based partnerships between researchers, based on shared research interests and themes, and between university administrators, have provided incentives for both Danish and Southern partners to stay engaged, despite the fact that all involved have other occupations, and that BSU does not offer merits comparable to e.g. publishing research. The cooperation between peers adds a legitimacy and horizontal nature to the work that could not have been obtained by e.g. using consultants to support capacity development, even if consultants have played a useful role in some specific areas.
- The thematic focus areas and the options for conducting pilot-research here, involving researchers and PhD-students, and building both research-based teaching, research and outreach capacities through learning by doing in an integrated processes, have proven essential for keeping teaching, research and outreach together as they are in successful universities all over the world.
- It has not always been possible to link work on university-wide administrative systems with the thematic work. The focus on core administrative systems has none the less ensured that BSU has not become a “project island” in the universities, delinked from the institutional structures, and it has ensured that BSU has been helpful solving very concrete and practical problems affecting teaching and research.
- In some partnerships, the activities have been spread too thinly and involved too many persons to produce a reasonable effect considering the costs involved. Therefore, most of the partnerships have sharpened their focus by reducing the number of thematic areas included in the partnership, which has enabled them to increase the volume in the supported areas.
- Despite some challenges, the present model of funding being administered by the partners seems to be working well with administrative support from Danida Fellowship Centre (DFC). Learning between the BSU Phase 2 participants has taken place, not least through a mid-term seminar held early 2016. More could have been done to broadcast the many exciting concrete stories generated by the programme.

### 3. The Building Stronger Universities Phase 3 Programme

#### ***3.1. Overall Programme Objectives and Outcomes***

The overall aim of BSU Phase 3 is that the partnering African universities have enhanced their role as providers of scientific knowledge and research-based education and advice to society. It involves capacity building of the African universities through partnerships with Danish universities.

This aim is expressed in a development objective which is “outside” the gates of the universities, and an immediate objective which refers to the use by students, researchers and stakeholders of university capacities “inside campus”:

At strategic objective level, BSU Phase 3 will contribute to i) improved quality of university education within the thematic areas leading graduates to obtain relevant employment or self-employment, ii) more and better quality research from the participating African universities feeding into the global knowledge base particularly relevant to sustainable development in Africa; and iii) specific uptake and use of applied research by societal actors, including private and public sector actors in the three countries. There may be instances of effects at this level at the end of BSU Phase 3 in 2021.

The programme objectives are formulated at shorter-term impact level, where BSU Phase 3 will contribute to i) effective research-based learning and timely graduation of an increasing number of post-graduate students within the thematic areas, ii) more and better organised research in selected thematic areas producing research proposals and broadcasting research results, increasingly in regional and international networks; iii) applied research addressing immediate societal challenges in selected thematic areas carried out in close collaboration with external stakeholders.

The participating universities differ considerably in terms of their size, funding situation and capacities. In the larger and better established universities, the contribution by BSU may be more modest at university level than in the smaller and younger universities. On the other hand, the more established universities are already further down the road towards becoming research-based universities proper, and may thus in selected areas get further than the less established universities for which the development of research capacities is still at an incipient level. The individual partnership engagements reflect these differentiated ambitions.

At *outcome level*, the programme will through the partnerships achieve results and have effects in three closely interlinked areas as described below:

#### *Outcome area 1: Administrative capacity:*

*University capacity is improved by strengthening administrative frameworks for university research.*

This includes administrative and financial processes, library and ICT facilities underpinning e-learning and overall policies related to the PhD education or to the career of young scientists. Many systems are university-wide, and emphasis will be on those that reinforce the achievements under outcome areas 2 and 3. In the individual partnerships, outcomes in this area will most often be at the level of users (students and researchers) actually benefitting from the facilities and services, while outputs will be either that services are offered, or that capacities are present. Funding under this outcome area will

across the six partnerships cover investments in administrative and financial computerised systems, facilities related to broadening the bandwidth for e-learning, digital and printed research resources; process and quality development, coaching, and on-the-job training in new computerised systems for grant management, student progression and theses management, and anti-plagiarism. As in BSU Phase 2, a significant part of the support from Danish partners to various partnerships will be provided by the same sources, thus ensuring synergies and learning across the partnerships, including through South-South exchange visits.

It is noteworthy that the Southern partners have shown high demand for continued support in this area, which focuses on the crucial links between research and teaching on the one hand, and the many critical support systems needed to deliver research and teaching on the other hand.

*Outcome area 2: Research and outreach capacity at system/organisational level:*

*University capacity is improved by strengthening organisation and systems for researcher education and research processes.*

This involves the academic aspects of the university research capacity within the selected thematic areas for the partnership, such as establishment of thematic research groups, faculty-wide enhancement of research methodologies and approaches, joint preparation of grant proposals, preparation of article manuscripts, etc. It also involves further work on strengthening the PhD and in some cases the master education within specified areas, e.g. through mandatory cross-cutting and/or elective courses, strengthened supervision, and PhD conferences<sup>11</sup>. Equipment related to specific research thematic areas could also be included. There will be a reduced number of thematic areas or stronger focus in existing areas in all partnerships, and no new scientific areas have been included.

*Outcome area 3: Research and outreach capacity at the level of individuals:*

*University capacity is improved by strengthening research and outreach practices and networks.*

By defining specific, minor pilot research within the thematic areas, researchers are cooperating through the research cycle improving their practices also in other areas. The work is organised around the established thematic research groups and PhDs, which are also funded under this outcome area, and should lead to closer linkages and cooperation between research groups in Denmark and in the partner countries. The emphasis on research outreach in the third phase reflects the improved capacity for undertaking research established in earlier phases. Outputs include research agendas and pilot research defined and in some cases carried out in collaboration with external stakeholders, and active networks functioning with ongoing dialogue. Most of the activities in this area will be closely integrated with activities in outcome area 2, but to ensure specific attention to the results these will be specified under this outcome area. Some additional specific outreach efforts will also be carried out, such as seminars and conferences for stakeholders, targeted publishing. In some of the partnerships there will be dedicated efforts to apply innovation processes and approaches, in collaboration with external partners.

The university partnerships each have defined their own outputs organised in work packages, which relate to these three outcome areas. The distribution of partnership outputs on programme level

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<sup>11</sup> The State University of Zanzibar is not yet approved by the national authorities to offer PhD education. In other universities, quality PhD offerings need to build on more research-intensive master-educations.

outcome areas is included as annex 3. The programme level results matrix with outcomes and output indicators is based on this and is included as annex 1.

### ***3.2. Theory of Change***

The theory of change for BSU is that *if* the administrative framework, the organisation and systems and the practices and networks for university research are strengthened, *then* the participating universities will enhance their research quality, education and outreach and hence provide a more significant contribution to social and economic development.

At the next level, the capacities (including incentives) to teach, organise and embark on research, and to support teaching and research (facilities, administrative and financial systems, etc.), will determine the actual quantity and quality of learning and research.

Researchers in both North and South gain merit by winning research grants and publishing, and they have to teach as part of their normal duties. BSU will only function if the incentives include a perspective of research proper, even if BSU is a research capacity programme, and not a research programme. It is thus also part of the Theory of Change that relations already built through parallel previous or ongoing research projects are a crucial asset in the partnerships.

Based on previous experience, the design of BSU Phase 3 assumes that research and outreach capacity is most effectively developed when kept together by a thematically focused joint effort that involves e.g. PhD (or master) students, post-docs and senior researchers from both the African and Danish partners around preparatory, pilot and thesis research work. This demands a strong focus on the specific, lasting results to be achieved in all three areas, and on how the lessons learned can be adopted and adapted by others. This integrated approach does imply that outputs (and outcomes) will in most cases be the effect of work which is structured and managed by thematic work packages, rather than by separate activities aimed e.g. only at teaching, or only at outreach.

BSU is a relatively modest programme in financial terms, implemented over four years. The focused activities should be combined with systematic efforts to broaden lessons and enable – but not assume full responsibility for – university-wide upscaling. The longer implementation period (compared to BSU Phase 2) combined with the stronger focus and the funding level will also ensure that BSU Phase 3 implementation pace can adapt to the partnership capacity in both South and North, including in particular the absorptive capacity in the South and the delivery capacity in the North.

### ***3.3. Summaries of the Six Partnership Engagements***

Reference is made to the partnership proposals in annex, which also include short descriptions of the participating African universities.

- **Gulu University (GU), Uganda**, and its Danish partners led by Aalborg University, have during BSU Phase 2 supported the establishment of PhD education at Gulu University and contributed to the development of distance learning and problem-based learning approaches. Cross-cutting post-graduate courses were developed and tested, and the Master of Education Programme curriculum was revised. These efforts will be continued and taken further within BSU Phase 3, which will also include support to testing of action-based research methodologies and enhanced outreach to communities in Northern Uganda. Thematically, the collaboration in BSU Phase 3 will be more focused with an emphasis on education research and rights, resources and gender in post-war

development. Education and research will furthermore be strengthened by supporting a number of PhD students in finalising their studies and by forming thematic research networks with external partners. As part of BSU, Gulu University continues a South-South partnership with Maseno University in Kenya (a partner in BSU Phase 1) regarding the development of an e-learning platform.

- In BSU Phase 2, **Sokoine University of Agriculture (SUA) in Tanzania**, and its Danish partners led by Copenhagen University, have developed a PhD-programme in agro-ecology, a PhD-programme in agribusiness and an MSc-programme in aquaculture. 16 courses have been jointly developed and tested involving 40 SUA staff members. The new programmes are at various stages of formal approval. Specific laboratory facilities have been provided and at university-level, an electronic document management system has been introduced in the finance department. The three thematic areas will continue in the third phase by fully establishing the three new post-graduate programmes and advancing each of them further by establishing research groups undertaking pilot research activities and education of individual PhDs with the aim of strengthening research capacity, promoting research-based learning and developing international research linkages. Furthermore, an outreach component has been included in the programme. Training and promoting the use of the financial management system will also be included in the third phase.
- The collaboration between **Kilimanjaro Christian Medical University College (KCMUC) in Tanzania** and its Danish partners led by Copenhagen University will focus on three thematic areas: Reproductive health, malaria research and HIV. Furthermore, BSU Phase 3 will include funding of specific laboratory equipment and support for further development of the financial management system, procurement systems and PhD education management. During BSU Phase 2, the PhD education was strengthened by developing guidelines for PhD supervision and training faculty staff to use them. This phase will continue the support to PhD education, and enhance support to collaborative research teams, for instance in reproductive health, and to three PhDs and Post Docs within the thematic areas. Support to financial and administrative systems will continue. Peer to peer collaboration between KCMUC and Danish counterparts provides momentum to these efforts.
- **State University of Zanzibar (SUZA)**, and its Danish partners led by Copenhagen University, will focus thematically on 1) environmental public health and 2) marine and coastal ecosystem health. Under BSU Phase 2 support was provided for developing an environmental health degree at the bachelor's level for accreditation. BSU Phase 3 will work towards accreditation at Masters level. BSU Phase 2 also assisted in establishing laboratory capacity to support prioritised sciences. The laboratory is seen as a key component in SUZA's business model for provision of consultancy services and related income generation. BSU Phase 3 will support additional efforts, including staff training in laboratory use.
- Under BSU Phase 2, **Kwame Nkrumah University of Science and Technology (KNUST) in Ghana** and its Danish partner universities have strengthened education and research capacity in the areas of agriculture/environment, entrepreneurship and health. Four PhD course curricula have been developed/revised and 80 KNUST staff have benefitted from research capacity building activities. Technical advice and funding has been provided to university-wide research support systems, including better access to literature, laboratory services and grants management. Under

BSU Phase 3 Aarhus University will be the lead partner continuing with the same thematic areas, but with a different emphasis. A strategic prioritization of establishing cross-disciplinary research groups leading problem-based research will constitute a central element for capacity building in BSU Phase 3. Furthermore, BSU Phase 3 will have a stronger focus on innovation and entrepreneurship with support for the university's incubation center and establishment of cooperation networks between industry and academia. The development of university-wide research support services and facilities will continue.

- The partnership proposal from **University of Ghana** with its lead Danish partner Aarhus University is a further focusing and consolidation of the project from BSU Phase 2 in its transition from a teaching-intensive university to a research-intensive university. Under BSU Phase 2, four cross-cutting PhD courses were developed and faculty staff trained as trainers in topics such as research-based teaching, quantitative and qualitative analysis, etc. running the courses. The most significant change in Phase 3 is the enhanced focusing of the collaboration on two of the four thematic areas from BSU Phase 2 (malaria and climate change). Within these two areas, BSU Phase 3 will support thematic research groups with PhD/post-doctoral teams collaborating on pilot research. This will include support to PhD education, outreach, and to four PhDs. Furthermore, support to university-wide research and education services and facilities will be continue in BSU Phase 3 in the form of improved grant management and financial information systems, stronger grant application processes, and post-doc career paths.

All partnerships will adhere to basic relevant human rights principles including non-discrimination and academic freedom. They will, as in BSU Phase 2, build on good governance principles such as participation, transparency and accountability. During BSU Phase 2, there has been emphasis on ensuring female researchers' access and setting gender-specific targets. Output- and activity-reporting has been gender disaggregated. This will continue in BSU Phase 3.

With the exception of one university, the partnerships from BSU Phase 2 are continued in BSU Phase 3. The **Danish partner universities** are Copenhagen University, Aarhus University and Aalborg University as main coordinators for the six partnerships. Furthermore, the University of Southern Denmark, the Technical University of Denmark, Copenhagen Business School and Roskilde University provide inputs in specific work packages. Together, they provide researcher skills and expertise within the thematic areas of the partnerships. At activity level this includes e.g. exchange visits, joint supervision, joint identification and development of research proposals, publications, development of courses and learning materials, and involvement of external stakeholders. It includes visits and work both in Denmark and in the partner countries related to the partnership work packages. Most of the support to developing financial and administrative systems will be outsourced from the Danish university partners.

The BSU programme allows the participating universities from Denmark and in the partner countries to establish and strengthen their cooperation, and it represents an opportunity also for students and young researchers to strengthen their capacity to participate in international research collaboration. In the longer perspective, BSU represents an opportunity to strengthen international partnerships and university relations and enable the partnerships to broaden their joint research with other sources of funding (FFU projects, EU funding, etc.).

### ***3.4 Sustainability considerations***

When BSU Phase 3 ends in 2021, it will be the end of ten years' of partnership support under Building Stronger Universities. The demand-led capacity building approach has enabled the African universities

to assume ownership of the activities, as witnessed by their management involvement and continued commitment.

This may be the last phase of the BSU programme, but regardless of whether a BSU continuation is envisaged beyond this third phase, sustainability issues remain important to observe throughout programme implementation. The long-term building of partnerships is seen as essential in this regard, and most of the partnerships envisage that joint research funding for specific projects can be obtained through external sources independently of Danida, whereby partnerships can continue.

It is also the intention that established research groups in the African universities will continue beyond BSU Phase 3 in the relevant thematic areas and that the approach will be instructive to other areas, but attention to this aspect of sustainability will have to remain in focus during programme implementation.

The PhD and postdoctoral frameworks established through the BSU partnerships will be integrated in the normal structures of the university as it is the case for administrative and financial processes improved under the programme.

### ***3.5 Risks and Risk Mitigation***

Entering into its third phase, the Building Stronger Universities Programme continues a programme design and implementation modality that have been tested. The university partners know each other well from the previous collaboration. Overall, the risks related to this programme are therefore assessed to be less substantial. However, there are some risks that should be observed in order to ensure the most successful implementation.

The stable development of the participating African Universities reflects a conducive regional and national context, and a consistent drive and capacity of the universities to enhance their performance. The risk that the development of strong and independent universities is no longer seen as a priority among the governments is considered minor, but economic shocks, political or societal upheavals may of course nullify this assumption.

Some risks to programme effectiveness and efficiency pertain to the national policy frameworks and the dependence of the universities on e.g. approval of new curricula, new standards for e.g. PhDs or Postdocs. This may cause delay, but be mitigated by early and realistic planning and realism about time horizons, as well as by clever lobbying work. Changes in policy frameworks may also affect BSU activities (e.g. Ghana extended PhD duration from three to four years), but can be mitigated by foresight and flexibility that allows early adaptation to changed context parameters.

All the universities in BSU are financed through four basic sources of income: regular government funding, tuition fees, research grants and contracts, and international development cooperation. In addition, individuals supplement their income through e.g. consultancy work. This basic pattern of funding will not change during BSU Phase 3, but awareness of the possible vulnerabilities can help avoid that achievements are overexposed to dependencies on e.g. levels of external funding, which tend to flood and ebb considerably.

Even though the partnerships increase their focus on outreach and collaboration with the private sector, there is a risk that private sector stakeholders are less willing and able than expected to prioritise engagements with the universities. Efforts may easily be seen to be too long term, uncertain, time-consuming, risky or of potentially limited added value. To mitigate, the partnerships will both have to define realistic ambition level, and to act smartly building on (and exchanging) specific lessons about

what works and what does not work. The testing of outreach initiatives in BSU Phase 2 and other experience already provides some lessons of how to approach private sector collaboration.

At university level, BSU Phase 3 may risk operating in isolation from other processes, whether endogenous to the universities or linked to international cooperation. This is mitigated by the approach whereby the African universities are in the lead in formulating the contents of the BSU partnerships. The fact that BSU has largely succeeded being closely integrated in pertinent university structures indicates the university ownership, and the universities will continue to explore synergies, avoid overlaps and promote learning between discrete initiatives and processes.

Funding individual PhD students in order to strengthen university capacity for research and education within specific areas always entails the risk that individuals will leave and the university will lose the asset. However, PhDs are only allocated to faculty staff and the involved universities normally make written agreements aimed at maintaining the individuals in a certain number of years.

The aspirations of BSU Phase 3 on objective level may not materialise if efforts are spread too thinly. This risk is mitigated inter alia through the reduction of thematic focus areas in the six partnerships from 19 in BSU Phase 2 to 14 in BSU Phase 3. Two partnerships will continue with the same number of thematic areas but focus within them, to avoid the risk of losing the investments already made in BSU Phase 2 and because the results obtained so far hold very good promise of consolidation and deepening in BSU Phase 3.

Following university procedures for procurement may also entail some risks of delay, as seen under BSU Phase 2. This will be mitigated by planning and longer implementation time of this phase.

The incentives for participation for the researchers in the BSU partnerships have been factored into the core of the theory of change, but there is still a risk that incentives and other pressing tasks may detract from the attention to BSU. Early and realistic calendar planning is essential, and the greater space in BSU Phase 3 for pilot and preliminary research will allow exchanges focused on substantial research themes, which may also be a motivating factor.

Risks and risk mitigation are further detailed in annex 2.

### ***3.6 Programme management, monitoring and reporting***

Danida Fellowship Centre (DFC) assumed the responsibility for administering BSU Phase 2 while the overall programme responsibility was with the Ministry of Foreign Affairs (since 2016 the Evaluation and Research Department). This arrangement has sometimes resulted in difficulties in demarcating responsibilities and the risk of task overlapping. BSU Phase 3 will therefore be delegated to DFC who will resume full responsibility for the programme. The Ministry of Foreign Affairs will retain oversight responsibilities as a donor, annually approve work plans and budgets for each partnership submitted by DFC and undertake a mid-term review after two years. The Ministry of Foreign Affairs will furthermore approve an implementation manual prepared by DFC, which will guide annual planning, progress reporting and governance of the university partnerships.

DFC will enter in agreement with the African universities who, on their part, resume full responsibility for the implementation of each partnership. Annual progress reports will be prepared by the university partnerships to DFC, and DFC will submit an annual programme level progress report and aggregated results measurement to the Ministry of Foreign Affairs. DFC is responsible for substantive comments to

the progress reports, which will guide the universities in their implementation. Each partnership will submit an audited annual financial report to DFC.

Annual visits to the universities will be undertaken by DFC and the Ministry of Foreign Affairs, except at mid-term, when all six universities will be gathered in Denmark for a mid-term seminar for mutual exchange of experience. Annual visits and the mid-term seminar will be organised by DFC. During the annual visits to Uganda, Ghana and Tanzania, a joint meeting between the participating universities, the Embassy, the relevant national partners and other relevant stakeholders will be undertaken. DFC will furthermore facilitate learning between partnerships through a designated webpage. DFC will also ensure that specific (brief, read-worthy) stories are shared, published and brought to the attention of the Ministry of Foreign Affairs and the Danish embassies (at least one story for each partnership per year).

Based on each partnership proposal, the universities will prepare a detailed implementation plan and budget, which will be approved during an inception review in 2017 by DFC and the Ministry of Foreign Affairs. An external consultant will participate and guide the partnerships in finalising their implementation plans and if necessary review the results framework.

The partnership documents included as annex 4-9 will form the basis for the agreements complemented by the detailed implementation plans, budget and results framework. Baselines and targets will be disaggregated by gender whenever relevant. This is parallel to the approach in BSU Phase 2.

Each of the African universities will maintain implementation and coordination responsibilities of their partnership. The management set-up by the African universities will continue to be aligned to existing university structures and described in the partnership agreements. A BSU Phase 3 coordinator will be appointed in each university and act as the primary entry point for all communication between the university and DFC.

### **3.7 Budget**

The overall budget for BSU Phase 3 is DKK 90 million. The distribution of the budget between the individual partnerships and the three outcome areas described in section 3.1. is shown in Table 1. The annualised budget is shown in Table 2. The budget distribution between African and Danish partners has been adjusted from 40% allocated to the Danish partner under BSU Phase 2 to up to 50% under BSU Phase 3, to provide a more balanced level of activities and better accommodate the needs in the partnerships.

To enable flexibility DKK 9 million has been set aside as unallocated funds that will be allocated to the partnerships after the mid-term review foreseen in 2020. Experience from BSU Phase 2 suggests that some partnerships will have a faster implementation than others. The mid-term review will provide an assessment of the degree of achievement of the BSU Phase 3 plans, which will serve to allocate the remaining funds as decided by the Ministry of Foreign Affairs. It will also serve as an opportunity to increase targets where relevant. DKK 6 million has been budgeted to cover the administration of the programme by DFC (DKK 3 million), and costs of reviews, annual meeting and consultancy input (DKK 3 million).

The partnerships have prepared framework budgets by outputs as structured by their respective work packages, and the output budgets have been distributed between outcome areas. Detailed budgets will be prepared in the inception phase and some reallocation between outcome areas may take place in this connection. During implementation, reallocation between outputs of up to 10% of the budget line will be allowed.

Eligible costs include staff salaries, technical assistance, PhD degrees, travel, training, dissemination and equipment costs. They are, as in BSU Phase 2, specified in details in a paper that will be attached to the partnership agreements between the African partners and DFC. As in BSU Phase 2, the partnerships can spend up to 10% of the total allocation on small-scale investments and major equipment items.

**Table 1: Budget for Building Stronger Universities, Phase 3, 2017 – 2021, in DKK**

	<b>Outcome area 1</b>	<b>Outcome area 2</b>	<b>Outcome area 3</b>	<b>University overhead &amp; administration</b>	<b>Total</b>
Gulu University	1,238,000	3,250,000	3,843,000	1,669,000	10,000,000
Sokoine University of Agriculture	1,277,672	6,577,815	2,858,561	2,285,952	13,000,000
Kilimanjaro Christian Medical University College	3,669,000	4,787,498	2,300,004	2,243,498	13,000,000
State University of Zanzibar	1,381,600	7,511,169	1,760,000	2,347,231	13,000,000
Kwame Nkrumah University of Science and Technology	2,273,889	5,947,111	2,469,000	2,310,000	13,000,000
University of Ghana	1,870,297	3,323,236	5,469,802	2,336,666	13,000,000
Subtotal	11,710,458	31,396,829	18,700,367	13,192,347	75,000,000
DFC administration				3,000,000	3,000,000
Reviews, annual meetings and mid-term seminar				3,000,000	3,000,000
Unallocated funds					9,000,000
<b>Total</b>					<b>90,000,000</b>

**Table 2: Budget for Building Stronger Universities, Phase 3, 2017 – 2021, in DKK, by year**

	2017	2018	2019	2020	2021	Total
Gulu University	500,000	2,500,000	2,500,000	2,500,000	2,000,000	10,000,000
Sokoine University of Agriculture	1,000,000	3,250,000	3,250,000	3,250,000	2,250,000	13,000,000
Kilimanjaro Christian Medical University College	1,000,000	3,250,000	3,250,000	3,250,000	2,250,000	13,000,000
State University of Zanzibar	1,000,000	3,250,000	3,250,000	3,250,000	2,250,000	13,000,000
Kwame Nkrumah University of Science and Technology	1,000,000	3,250,000	3,250,000	3,250,000	2,250,000	13,000,000
University of Ghana	1,000,000	3,250,000	3,250,000	3,250,000	2,250,000	13,000,000
DFC administration <sup>*)</sup>		750,000	750,000	750,000	750,000	3,000,000
Reviews			1,500,000		1,500,000	3,000,000
Unallocated funds				4,000,000	5,000,000	9,000,000
<b>Total</b>	<b>5,900,000</b>	<b>19,650,000</b>	<b>22,950,000</b>	<b>23,650,000</b>	<b>17,850,000</b>	<b>90,000,000</b>

<sup>\*)</sup> DFC administration in 2017 is covered by the BSU Phase 2 grant.

## Annex 1: Results Framework

### Results Framework for Building Stronger Universities Phase 3<sup>12</sup>

Programme Objective		By 2021, 6 BSU-supported universities have, in selected thematic areas, i) effective and research-based learning and timely graduation of an increasing number of post-graduate students, ii) more and better organised research producing research proposals and broadcasting research results, increasingly in regional and international networks; iii) applied research addressing immediate societal challenges carried out in close collaboration with external stakeholders.	
Impact Indicator		No. of PhD and MSc students graduating on time annually or on track to do so; additional no. of submitted or accepted articles in peer reviewed journals, and submitted grant proposals; no. of ongoing community, private or public sector research collaborations	
Baseline	Year	2017	400 students underway to graduation linked to BSU thematic areas; 5 research proposals funded; 50 manuscripts prepared and submitted under BSU 2; 5 stories showcase lessons about outreach to/involvement of stakeholders or uptake of research results.
Target	Year	2021	300 students (of which at least 50 PhDs, and at least 30% of each gender) graduate in BSU thematic areas, and 600 (of which at least 100 PhDs, and at least 30% of each gender) are on track to do so over the following 2 years; at least 20 joint research grant proposals have been submitted before 2021, of which at least 25% have been accepted; 50 manuscripts submitted to peer reviewed journals before 2021, of which at least 25% accepted, and at least 20% of listed authors are female; by 2021, there are at least 12 ongoing research collaborations involving external stakeholders or specific evidence of uptake of research results in BSU-supported thematic areas, 12 stories showcase lessons about outreach to/involvement of private or public stakeholders or uptake of research results.

Outcome area 1		University capacity is improved by strengthening administrative frameworks for university research	
Outcome indicator		Researchers and postgraduate students experience more well-functioning university administrative systems (e.g. financial management, grant management, research student management), and better services (e.g. libraries, digital access).	
Baseline	Year	2017	At least 12 cases can be identified where users confirm that support services (e.g. grant management, library, laboratory or PhD/research facilities) are working better than in 2014.
Target	Year	2021	By 2021, all 6 BSU partnerships report, based on user-surveys among staff and postgraduate students, that at least 2/3 of the specific support services where BSU Phase 3 has supported capacity development, functions satisfactorily or better, and markedly better than in 2017.

Output 1.1.	By 2021, administrative systems and systems for Masters and PhD monitoring are strengthened in all 6 universities
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<sup>12</sup> Baseline values are taken from BSU Phase 2 targets. They will be verified and as necessary adjusted at the end of BSU Phase 2.

Output Indicator		Systems are installed and operational, and users' skills adequate as confirmed by survey reported in progress reports in 2021	
Baseline	Year	2017	5 universities have specific new systems in use and plans for further capacity development in these areas
Target	Year	2021	Installed and operational systems and skills are found in all 6 universities regarding: 4 grant management systems, 3 financial management/procurement systems, 2 research management information system, 2 systems for controlling plagiarism. Total of 75 staff trained in administrative systems.

Output 1.2.		By 2021, policy and strategy for research and outreach are approved in thematic areas related to BSU in 3 universities	
Output Indicator		Approval documentation from Senates or other relevant bodies and progress reports confirming actual changes in research and outreach strategies.	
Baseline	Year	2017	Research strategies approved in 3 universities
Target	Year	2021	Research and outreach strategies approved in all 6 universities related to BSU thematic areas of research

Output 1.3.		By 2021, library services are improved in 5 universities, including electronic access to literature and other e-resources.	
Output Indicator		Expert assessment by senior researchers in selected thematic areas confirm that accessible content in libraries is adequate for research and research based teaching, in progress report by 2021.	
Baseline	Year	2017	New facilities, processes and/or skills in use or ready to be used in at least 4 universities
Target	Year	2021	Accessible content in key thematic areas is confirmed to be adequate for researchers in 5 universities

Output 1.4.		By 2021, e-learning platforms and virtual facilities are strengthened in 4 universities.	
Output Indicator		No. of postgraduate classes run with e-learning platforms	
Baseline	Year	2017	To be determined in the inception phase
Target	Year	2021	50% increase within the BSU thematic areas in 4 universities

Outcome area 2		By 2021, university capacity is improved by strengthening organisation and systems for researcher education and research processes.	
Outcome indicator		Thematic research groups have developed within BSU thematic areas and the approach has been adopted in other areas. New/revised Master and PhD courses established. Faculty-wide enhancement of research methodologies and approaches; mandatory cross-cutting and/or elective PhD courses, PhD students effectively supervised and sharing ongoing research. Grant proposals and publications are regularly submitted.	
Baseline	Year	2017	Research groups within BSU thematic areas only exist sporadically. 5 have developed a specific research agenda/proposal endorsed by University management. 30 courses co-developed and tested, of which at least 10 courses are offered in academic year 2016/17.
Target	Year	2021	At least 16 research groups are engaged in pilot and preparatory research, and at least 10 groups are in parallel engaged in research funded from elsewhere. On average there will be at least 6 persons (with on average at least 33%

			female) from the Southern university attached to each group (senior researchers, post docs, PhD students, in some cases master students). At least 20 mandatory and/or elective PhD courses (e.g. 10 additional) are run as a regular offer; at least 70% of graduating PhD confirms in exit survey that supervision has been satisfactory or better. In 5 of 6 BSU partnerships, faculty or department heads not directly involved confirm their awareness of BSU approaches and lessons learned. Each research group submits and plans to submit at least one grant proposal annually, and submits at least 2 articles to peer-reviewed journals.
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Output 2.1		By 2021, at least 16 thematic research groups are established and functional within BSU thematic areas in all 6 universities. They include a mix of senior researchers, post-docs, PhDs and PhD students, with approved agendas and aims, and budgetary provisions enabling them to continue their work at least two years ahead.	
Output Indicator		Number of research groups and active researchers attached, available agendas, budget forecasts for 2021-2023	
Baseline	Year	2017	Less formalised research teams exist within BSU thematic areas.
Target	Year	2021	16 research groups with on average 6 members (at least 33% of each gender on average) confirm they are consolidated, and produces realistic budget forecasts confirming their continued existence up to at least 2023.

Output 2.2.		By 2021, 17 PhD and Master courses are developed/ revised and implemented in BSU thematic areas.	
Output Indicator		Number of approved additional courses and revised curricula; improved supervisor skills confirmed through survey amongst PhD students.	
Baseline	Year	2017	10 new courses offered from BSU 2 collaboration
Target	Year	2021	Additionally, 17 courses have been approved, 75% of PhD students surveyed confirm that supervision is satisfactory or better.

Output 2.3		By 2021, improved laboratory facilities and research equipment installed and used at 5 universities. Staff trained in the use of equipment.	
Output Indicator		Use of laboratory facilities as reported in laboratory log books. Senior researchers confirm the use and relevance of laboratory facilities. Supplies and maintenance agreements in place.	
Baseline	Year	2017	One laboratory partially installed as part of BSU 2
Target	Year	2021	Laboratory and equipment in 5 universities used.

Output 2.4		By 2021, improved systems for management of research linkages with external stakeholders established at 4 universities.	
Output Indicator		Systems for linkages to external stakeholders established.	
Baseline	Year	2017	Only little systematic stakeholder involvement
Target	Year	2021	Systems for stakeholder involvement described in 4 universities.

Output 2.5		By 2021, new learning approaches (problem-based learning, e-learning) are integrated in Master and PhD teaching in 3 universities	
Output Indicator		No. of staff trained in new pedagogical approaches	

Baseline	Year	2017	0
Target	Year	2021	40

Outcome area 3		University capacity is improved by strengthening research and outreach practices and networks.	
Outcome indicator		Skills and experience of individual researchers enhanced in relation to international collaboration, new research methods and outreach practices.  Researchers involved in BSU supported research teams have enhanced their level of publication and their engagement in international cooperation more than other faculty staff. Networks with external stakeholders are firmly established around concrete aspirations and activities in BSU thematic areas;	
Baseline	Year	2017	Current no. of publications and of international research collaboration projects to be established in inception phase.
Target	Year	2021	No. of publications and international research collaboration projects within BSU thematic areas to be doubled. 12 active stakeholder networks functioning within BSU thematic areas.

Output 3.1		By 2021, research capacity has been increased through the joint implementation of collaborative pilot research projects in 6 universities	
Output Indicator		Projects finalised as per progress reports.	
Baseline	Year	2017	0 projects
Target	Year	2021	6 projects

Output 3.2		By 2021, enhanced academic level of faculty staff within BSU thematic areas at 6 universities	
Output Indicator		No of staff at 6 universities graduated as PhD with BSU support.	
Baseline	Year	2017	7 PhD on track to graduate (BSU Phase 2), with at least 40% of each gender.
Target	Year	2021	Additional 21 staff graduated (at least 40% women).

Output 3.3		By 2021, the majority of researchers and PhD students in BSU thematic areas have skills and experience in outreach and networking as part of methodological approaches to research, as well as in dissemination of research results.	
Output Indicator		No. of faculty staff trained in outreach and dissemination with BSU support	
Baseline	Year	2017	0
Target	Year	2021	110

## ***Annex 2: Risks and Risk Management***

### **Contextual risks**

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>	<b>Background to assessment</b>
Weakened national political commitment to strong and independent universities in the three countries	Unlikely	Major	Policy dialogue with authorities	Political commitment to tertiary education and research has been steady for decades and seems to be on the rise
Key researchers or PhDs funded by the programme choose to leave the university or the country	Likely (in some countries only)	Minor	Continue to focus institutionally	BSU is designed to strengthen institutions and weaken vulnerabilities linked to individuals' choices
Rules and frameworks for research and postgrad education may change	Likely	Minor	Keep contact with national research and university authorities to anticipate and influence changes.	Previous phases of BSU have seen changes, e.g. extending PhDs from 3 to 4 years in Ghana. The in-built flexibility in BSU has allowed adaptation to such changes.
Delays in approvals of e.g. PhD curricula by national authorities	Likely	Minor	Anticipate and plan for considerable time spans	Earlier phases have shown that this is a likely risk, and it may lead to unexpected delays.
External stakeholders have few incentives to prioritise engaging with universities	Likely	Minor	Realistic ambitions, and smart outreach approaches	External stakeholders may not perceive that university contacts, often of a longer term nature, add value vis-à-vis realities of short term pressures.

### **Programmatic risks**

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>	<b>Background to assessment</b>
Weak staff incentives to work on BSU supported activities in both North and South	Likely	Minor	Room for pursuing joint research interests through thematic focus; adequate compensation;	Participants in BSU have repeatedly raised this issue, and it may have led to the involvement of too partners on an ad hoc basis, to the detriment of the programme.

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>	<b>Background to assessment</b>
			build on long term relationships	
Weak senior management attention makes scaling up of results difficult	Likely	Minor	BSU built into central university structures; avoid project islands or turfs.	Bringing BSU close to management has mitigated this risk, but not entirely. University management is traditionally (in North and South) not that unified and strong, setting limits to what BSU can expect to achieve.
Key persons in BSU have many other obligations	Likely	Minor	Delegation of tasks; early and realistic planning; focus on effective coordination and management structures	BSU has the privilege to work with dedicated and accomplished staff in both North and South, such staff tend to attract work to themselves.
Sustainability of results beyond BSU	Likely	Minor	Focus on gradual and full take-over when desirable; search for sources to continue international research collaboration in thematic areas	The focus of BSU is on sustainable capacity, but this takes time to develop and anchor.
Financial mismanagement	Unlikely	Minor/ Major	Danida Fellowship Center (DFC) administrative follow-up and capacity building of project holders. Annual external audits	During BSU Phase 2 there have been examples of poor reporting and delays, but no deliberate mismanagement. DFC follow-up and capacity building to project partners is essential.
Delays in procurement	Likely	Minor	Programme planning and longer implementation time.	University procurement delayed BSU Phase 2 implementation. BSU Phase 3 is of a longer duration with more time for planning and implementation.

### **Institutional risks**

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>	<b>Background to assessment</b>
Southern universities change internal regulations, or are	Likely	Minor	Maintain BSU closely integrated in university structures, apply flexibility in funding eligibilities	There have been such changes (e.g. staff PhDs no longer accepted, new colleges merged into a university)

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>	<b>Background to assessment</b>
focused on other pressing tasks				
Overlaps and underexplored synergies with other international collaboration	Likely	Minor	BSU built into relevant university structures; BSU partnerships will actively share lessons	Projects “staying by themselves” are a fact also in some of the Southern BSU-partners. Phase 2 has shown that BSU has e.g. been able to bring uninstalled equipment from other projects into use, and worked collaboratively to strengthen synergies.
Synergies with other Danish assistance in the country not explored	Likely	Minor	Keep embassies informed and involved; ensure that stories are told	BSU is managed from Copenhagen, possibly weakening embassy incentives to pay attention to the programme. However, all embassies have expressed that they consider their engagement important, and they also see clear links to other Danish assistance.

**Planned date for first assessment: 1st Quarter of 2019, in connection with first annual reporting.**

**Annex 3: Partnership outputs and indicators organised according to programme outcome areas**

**Outcome area 1: Administrative capacity**

	Gulu University	SUA	KCMUC	SUZA	KNUST	University of Ghana
<b>Output 1.1:</b> By 2021, administrative systems and systems for Masters and PhD monitoring are strengthened in 6 universities						
Grant management, financial management, procurement	1 (grant man.)		1 (grant, procurement)	1 (grant man.)	1 (finance)	1 (grant + finance)
Management and monitoring of research (Phd and Masters)	1		1		1	
Plagiarism software	1			1		
No. of staff (administrative + faculty) trained in admin systems (75 staff trained)*	5	10	10	10	20	20
<b>Output 1.2:</b> By 2021, policy and strategy for research and outreach are approved in 3 universities						
Research agenda reviewed	1					
Research and outreach strategy				1		
Career structure for postdoctoral researchers established						1
Doctoral College established					1	
<b>Output 1.3:</b> By 2021, library services are improved in 5 universities, including e-resources	1		1	1	1	1
<b>Output 1.4:</b> By 2021, learning platforms and facilities are strengthened in 5 universities						
e-learning platform strengthened	1		1	1		
PhD virtual classroom facility established or strengthened						1

## Outcome area 2: Research and outreach capacity at system/organisational level

	Gulu University	SUA	KCMUCo	SUZA	KNUST	University of Ghana
<b>Output 2.1:</b> 16 thematic research groups established and functional	2	3	3		4	4
<b>Output 2.2:</b> 17 PhD and Master courses developed and implemented*	4	4	3	2		4
<b>Output 2.3:</b> Laboratory facilities improved and used at 5 universities		2				1
- DNA sequencing			1			
- Telemedicine facilities			1			
- Insectarium				1		
- Innovation lab					1	
- Training in lab management				1		
<b>Output 2.4:</b> Systems for research and linkages with external stakeholders established at 4 universities	1			1	1	2
<b>Output 2.5:</b> New learning approaches (problem-based learning, e-learning) integrated in Master and PhD teaching in 3 universities	1			1		
Additional indicator for 2.5: 40 faculty staff capacity increased in relation to new pedagogical approaches (no. of staff)*	20		20			

## Outcome area 3: Research and outreach capacity at the level of individuals

	Gulu University	SUA	KCMUCo	SUZA	KNUST	University of Ghana
<b>Output 3.1:</b> Collaborative pilot research projects implemented at 6 universities	x	x	x	x	x	x
<b>Output 3.2:</b> 21 PhD graduates finalised*	6	6	3	1	3	2
<b>Output 3.3:</b> Skills and experience in outreach and networking + dissemination		3	3		1	

	Gulu University	SUA	KCMUCo	SUZA	KNUST	University of Ghana
110 faculty staff capacity increased in relation to outreach and dissemination (no of staff)*	20	20	20	10	20	20

\* Targets to be confirmed/specified in the inception phase and described in the implementation plans.