

Ministry of Foreign Affairs of Denmark

Research collaboration projects in growth and transition countries (“Window 2”), 2018

Invitation and guidelines for Phase 2 applications

Applicable only for research applications prequalified in Phase 1

Deadline: 24 August 2018, 12:00 hrs. (Danish Time)

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1. Introduction

The Ministry of Foreign Affairs of Denmark (MFA) provides grants for development research activities as part of Denmark's international development cooperation. Two windows are available in 2018 providing grants for research with partners in Danida priority countries and for research with partners in growth and transition countries. Within this framework, the MFA invites phase 2 applications for grants related to development research in growth and transition countries involved in the Strategic Sector Cooperation Facility (earlier named "Partnering with Denmark"). Phase 2 is the submission of a full application only by those selected ("prequalified") in phase 1 in 2018.

The total budget available for this research window is approximately DKK 60 million. The duration of projects is 18 to 36 months with a maximum grant of DKK 5 million for each project. These initial research projects are considered pilot projects and will subsequently be eligible to apply for an additional grant based on a new application as a continuation of the partnership (conditional on approval of a funding envelope for subsequent years).

A Consultative Research Committee for Development Research (FFU) is tasked with assisting the MFA by providing professional and scientific advice in relation to research applications and projects.

The Danida Fellowship Centre (DFC) administers the MFA's support to development research. Questions or queries regarding application procedures should be directed to DFC¹ at research@dfcentre.dk.

The deadline for submission of Phase 2 applications is **24 August 2018 at 12:00 hrs. (Danish Time)**. Applications must be submitted in English and electronically via DFC's e-application system.²

More information is available at <http://dfcentre.com/research/calls-for-applications/>, including advice by FFU on how to prepare a good application and a guide on the role of sector counsellors, including in the application process.

2. Objectives

In accordance with the overall objectives of the MFA's support for research, grants will be awarded to strategic research cooperation which generates new knowledge relevant to the needs and strategies of the growth and transition countries and contributes to strengthening research capacity in these countries.

The research collaboration projects in growth and transition countries are considered an important element in the Danish response to demand from these countries for cooperation within areas where Denmark has internationally recognised knowledge and experience. The research partnerships should therefore focus on areas where this strategic interest for Denmark and the partner country has been identified, thereby strengthening bilateral collaboration in this area (see section 5 below).

¹ For the General Conditions regarding on-going projects, calls, e-application forms, etc. see: <http://dfcentre.com/research/general-conditions-and-forms-for-research-projects-2/> and <http://dfcentre.com/research/calls-for-applications/>

² See Section 11 for information on how to access and use the e-application system.

The research capacity strengthening element of the projects will depend on the needs and demands of the national partners. In some countries, the capacity strengthening element could involve specific activities with this purpose, whereas for other countries research capacity strengthening could be achieved indirectly through the experience gained under this international research collaboration.

It is important to note that the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 constitute an overall thematic framework for development cooperation and research.³

3. Research Themes

As noted above, the global 2030 Agenda and the seventeen United Nations Sustainable Development Goals (SDGs) constitute an important framework for development cooperation and research.⁴ Therefore, it is envisaged that research projects and collaboration with respect to the selected research themes will be undertaken within the context of the relevant SDGs and that these will be reflected in the justification for the research proposals.

The thematic focus areas are country-specific and have been determined on the basis of the focus of Danish Strategic Sector Cooperation in the countries.⁵ A complete list of themes for each country is included as Appendix 1.

4. Assessment Criteria

The FFU assesses Phase 2 applications on the basis of four criteria, i.e. scientific quality, relevance, the potential effect, and feasibility.

The scientific quality is assessed on the basis of:

- *The research experience and qualifications of the project coordinator and the team;*
- *The originality and innovative nature of the project, in terms of generating new knowledge.*

The relevance is assessed with respect to:

- *The focus of the project is well-defined with respect to the announced research theme in the chosen partner country;*
- *The project contributes to the overall objectives of Danish Strategic Sector Cooperation in the country (where relevant) or is otherwise relevant for strengthening commercial or political cooperation with Denmark;*
- *Preferably, the project includes private sector partners or has potential for such a partnership in a possible subsequent funding phase.*

The effect is assessed based on:

- *The potential direct effects with respect to the selected Sustainable Development Goal(s);*
- *The effects of the project in terms of partnerships with the public and private sector which could take the research to the next level;*
- *The contribution of the project to strengthened research capacity, which should add value for both the Danish and the partner institution.*

³ See: <https://sustainabledevelopment.un.org/sdgs>

⁴ <https://sustainabledevelopment.un.org/?menu=1300>

⁵ <http://um.dk/da/eksporttraadet/markeder/vaekststrategier/myndighedssamarbejde/> (in Danish)

The feasibility is assessed as regards:

- *The management structure for the research project;*
- *The project coordinator's managerial skills and previous experience with research in developing countries;*
- *The proposed design and activities.*

The MFA will select the best projects for funding based on the FFU's assessment of the above criteria and an even distribution between countries.

As stated in the "General Conditions for Grants to Research Collaboration Projects Supported through Denmark's International Development Cooperation", <http://dfcentre.com/research/general-conditions-and-forms-for-research-projects-2/>. The MFA may make the processing of new applications from the project coordinator conditional on compliance with the terms and conditions of previous grants, including whether the total time allocation for individual researchers on several projects exceeds what is considered feasible.

Phase 2 applications will be forwarded to international scientific peer reviewers for review of the scientific quality of the proposed project. To facilitate the peer reviewing process, applicants are requested to suggest suitable peer reviewers within their scientific field in the e-application form.

5. Project Description

The application must contain a project description (Appendix A), which must be structured according to the headings indicated below and in the stated order. All headings must be used and none added. It is important to ensure that the application is clear and focused and although there are no requirements regarding the length of each section in the project description, the project description as a whole must not exceed 10 pages, plus references.

The pilot projects should have a research-oriented objective and could include a range of research and capacity strengthening activities as well as networking activities between the involved partners. The pilot projects must contain actual research activities addressing a research question within the announced research theme in the chosen country. Preparation of an application for a possible subsequent funding phase could constitute part of the pilot phase.

Heading	Content
1. Title and project coordinator	Project title and name of project coordinator as stated in the electronic application.
2. State of the art and rationale	As an introduction to the objectives of the research, this section should include a state-of-the-art literature review and an outline of how new knowledge will be generated on the topic concerned. This will highlight how the proposed research relates to prior and on-going investigations on the chosen theme.
3. Relevance	A brief summary of the importance of the project with respect to the national sector policies, Danish Strategic Sector Cooperation and the Sustainable Development Goals (SDGs).

<p>4. Objectives</p>	<p>Objectives are defined as what the project aims to achieve in the long term. Achieving the objectives is the impact of the research. Objectives and possible associated research hypotheses must:</p> <ul style="list-style-type: none"> - Drive the “state of the art” forward; - Address clearly defined research issues; - Provide new knowledge and be innovative; - Include substantive elements of research capacity strengthening. <p>(Must correspond to the objectives in the LogFrame in the e-fond application form)</p>
<p>5. Expected outcomes and outputs</p>	<p>The main scientific results and research capacities built must be listed. Outcomes are what the project aims to achieve in the short and medium term and are the result of project outputs as well factors beyond direct control (such as policy changes and/or practices of stakeholders/users of project outputs). Outputs are produced as a direct result of activities, e.g. seminars and publications.</p> <p>(Must correspond to the outcomes and outputs in the LogFrame in the e-fond application form)</p>
<p>6. Methodology</p>	<p>In describing the methodology, design and research capacity strengthening, this section should include:</p> <ul style="list-style-type: none"> - Methods and project design to address the selected objectives; - Approaches to research capacity development; - Ethical considerations (where relevant); - How the research adheres to Danish and partner country requirements concerning research permits and provision of information to relevant authorities. <p>This constitutes the basis for assessing the feasibility of the proposed research.</p>
<p>7. Overview of the research plan</p>	<p>This section will include the proposed timetable, milestones and resource allocation by the participating parties. Joint fieldwork should be described both in terms of time allocation for researchers and in proposed work packages.</p> <p>Perspectives for continuing the research beyond the pilot phase may also be described.</p>
<p>8. Organisation and management</p>	<p>Based on a summary of the scientific and managerial competences of the research partners, this section will include outlines of:</p> <ul style="list-style-type: none"> - Research and institutional capacities; - Management, coordination and collaborative arrangements proposed for the research project including with the Danish Strategic Sector Partners (and advisers, as appropriate); - Coordination with other related research capacity strengthening initiatives.

9. Capacity strengthening	<p>This section will include a description of how research capacity strengthening will increase the quality and competitiveness of participating institutions (research environments), notably through:</p> <ul style="list-style-type: none"> - Facilitation of access to and use of scientific literature; - Training of senior researchers and teams to design and manage research and to produce, document and disseminate results; - Support for establishing and running laboratories and other facilities; - Access to databases and libraries.
10. Partnerships	<p>In terms of collaborative partnerships, this section should outline how the research will draw on and cooperate with related international projects, including participation in research networks, conferences, etc. Perspectives for collaboration with the private sector must also be highlighted.</p>
11. Publication and dissemination strategy	<p>A dissemination plan will be outlined, indicating the expected results and how these will influence policies and actions, as well as joint publication and knowledge sharing.</p>
List of references	<p>Attach a list of principal publications, etc. used in the research project description.</p>

6. Participating Researchers and Institutions

Experience shows that the project coordinator plays a key role in ensuring that a collaborative research project is successful. Effective engagement/ involvement of the project coordinator will entail a substantial workload, noticeably at the beginning of the project.

All researchers (including postdoc) of all participating institutions and partners including subcontractors must be named and their CVs attached. CVs of private sector participants must be attached together with the profile of the partner company/private sector institution.

It is important that the project coordinator and the research team document relevant scientific merits/qualifications and research background within the research topic applied for. A project coordinator may apply for more than one project, but only one project per project coordinator may be approved for this funding window.

In order for research partners to benefit from the collaboration, partnerships should be equal, and partners should be able to contribute actively in preparing the Phase 2 application. Research applications which have been prepared without the active involvement of partners in growth and transition countries will not be approved. Other important aspects of equal partnerships include joint fieldwork, joint publishing, knowledge sharing, access to databases and libraries, etc.

It is strongly encouraged to involve partners from the private sector and national authorities in the partner country or in Denmark in the research project, and grant funding can be used for their direct involvement and expenses in relation to the project activities. Such partners are encouraged to contribute additional resources (funding or in-kind) to the projects. International research institutions and research institutions in countries outside Denmark and outside the partner countries can be included as sub-contractors and can be supported by the grant for their direct contribution to project activities.

It is furthermore expected that a project advisory committee is established from the outset of the project, including key stakeholders such as the Sector Counsellor at the relevant Danish Embassy, and key persons involved in Strategic Sector Cooperation within the theme, and that meetings are held with the committee at least 1-2 times yearly.

As the project duration is only up to three years, it is not envisaged that PhD studies can be included. Direct input of ongoing PhD studies may be included if justified how this contributes to the projects is provided.

Education of **Masters students** in the growth and transition countries, but not in Denmark, may be supported if convincing arguments are presented.

Travel grants for Masters students enrolled at Danish higher education institutions doing field studies as part of their Masters' thesis can be included in the projects. Such travel grants must be used for the student to visit the project partner and carry out field studies within the scope of the project.

7. Required Format of the Application and Appendices

The e-application system is accessible from DFC's website via the following link:
<http://dfcentre.com/research/calls-for-applications/>.

The Phase 2 application must comprise

- An e-application form
- Appendix A: Project Description
- Appendix B: CVs of all researchers and other project participants named in the application form Step 1A
- Appendix C: Budget
- Appendix D: Signatures

All appendices must be in English. Appendix A, B, and D must be submitted in PDF-format, while Appendix C must be submitted in Excel-format. The total size of all appendices must not exceed 25 MB. The appendix files must be named "Appendix [letter]".

The required format and content of individual appendices are described below. Other appendices/documents will not be considered.

Appendix A - Project Description: Must contain the headings as described in Section 5. The text format must be Verdana, 10-pt font size, with at least 2 cm left and right margins and at least 13-pt line spacing. The project description must be maximum 10 pages, plus references.

Appendix B – CVs: The front page must include a table of content listing the CVs in the order in which they appear in Step 1A in the e-application form. CVs should not exceed 2 pages per person. CVs of researchers must specify the scientific qualifications, managerial skills, and experience from developing

countries, and must include a list of key publications and patents. CVs of private sector partners must be accompanied by a profile of the company/private sector institution. The table of contents and all CVs must be compiled in a single PDF file in which each CV starts on a new page. Signature on CVs is not required.

Appendix C – Budget: The budget format must be used. Remember to include budget notes.

Appendix D – Signatures: This appendix comprises all signatures of participating researchers/partners and institutions in the project, as listed in Step 1A of the e-application. Use the two templates available on the DFC website - D1 Main Applicant and D2 Partners, respectively. Use one signature page per institution/company, which comprises the signatures of the Head of Institution/Department and named researchers/participants in Step 1A in the e-application form. Compile all signature pages in one PDF file before uploading the appendix.

8. Finances

The maximum grant is DKK 5 million for a pilot project of 18-36 months' duration.

Approximately the same level of researcher working time on the project is expected to be allocated to Danish researchers and researchers in the partner country. The allocation of working time must be explained in the e-application form.

The budget (Appendix C) must contain a budget for each participating institution. The budget forms must be filled in with the amounts applied for (not including co-funding). The budget for each partner must be prepared so that expenses are covered by the executing part. For international research institutions, private sector partners, international organisations, or other sub-contractors, the budget can only include salaries and travel expenses covering their direct contribution to project activities, and no administration fees can be covered. The budget of subcontractors can be included in the budget of one of the research partners, if applicable, and should be clearly explained in the budget notes.

It is expected that the participating research institutions will provide additional resources to the project (. Co-funding may be provided in the form of monetary contributions or as payment 'in kind', i.e. by making equipment, staff, etc. available, in which case this should be detailed in the budget notes. Additional co-funding of pilot projects is not a requirement, but in a possible subsequent research project, substantial co-funding would be expected from public or private partners.

Eligible budget items:

Salaries and emoluments

Salaries for staff and must follow the appropriate tariffs applying to the local institution in question. It is not accepted that staff is paid allowances on top of the salaries already received from the institution. Salaries are either compensation/ replacement salary paid to the institution for the time the staff allocates to the project, or compensation payment for over-time, either hourly or performance based. In the case of over-time payment, a written agreement must be entered between the institution and the researcher. Double salaries and payment of consultancy fees will not be accepted.

With the signature of the Head of the Institution/Department, the responsible institution verifies that the budgeted project salaries and fees comply with applicable collective labour agreements. The responsible institution must also ensure that current tariffs for remuneration at all partner institutions are applied and

that salaries in the budget are based on gross salaries and do not include double payment or payments on consultancy terms.

It is the responsibility of the applicant institution to ensure that the budget for salaries includes any additional allowances, holiday allowances, labor market pension schemes, pension contributions, salary increases triggered by labor market agreements and seniority, etc.

Tuition fees/ educational grants

Tuition fees and educational grants can be covered for Masters students from growth and transition countries. The educational grants must follow the rules and regulations of the institution in question. The grant is placed at the disposal of the institution and is intended to cover expenses incurred in connection with the grant, i.e. supervision, courses, brief trips, study periods at other institutions. Such expenses can thus not be covered under other budget lines.

Expenses for trips and fieldwork

Project staff can only receive per diem and other reimbursable costs according to their institution's rules, regulations and cost-norms. However, should local per diem rules exceed the applicable rates according to Danish rules then the Danish rules must be applied. The cheapest fare should be applied and frequent flyer points earned on these flights cannot be used for private purposes. Budgeted travel must be justified and directly related to project activities. The table for planned travel, being part of the budget form, must correspond with the travel expenses.

If a researcher is not covered by personal insurance or similar, an amount for health insurance per month for travel outside the home country may be included.

Travel grants (direct travel costs and accommodation expenses) for Masters students from Denmark can be included in this budget line.

Research equipment and material

All purchases must be in accordance with international and national procurement regulations. The budget items for project and research equipment cover the expenditure of acquiring necessary equipment, apparatus, literature, IT equipment, insurance, etc. A project vehicle can only be purchased for local transport in exceptional cases where there is a need for frequent field trips, and where it is obviously less expensive than other forms of transport. If purchase of a project vehicle is included, the budget notes must include a comparison of the cost of purchasing and using the car compared with other forms of transport.

Project expenses must not include VAT, in case it is possible for the South/Danish institution to receive VAT refund.

Projects administered by a government institution should apply the rules of state self-insurance and, outside Denmark, otherwise secure the insurance of equipment.

Publication, dissemination and outreach

Under this budget item, expenditure for ongoing, current or subsequent dissemination and publication of research findings may be included, for instance:

- Publishing of reports, etc.
- Minor publications for local dissemination
- Production of materials for dissemination through a website and other electronic media
- Participation in conferences if the applicant delivers a poster or paper presentation
- Holding of workshops and seminars (local expenses)
- Alternative forms of dissemination

Publication of research results in open access journals is encouraged and the costs should be included in the budget.

Travel expenses and salaries in connection with workshops and conferences must be included under their respective budget lines.

Overhead/administration fees

For project grants administered by a government institution or a self-governing institution registered as having an account on the Appropriations Act, the Ministry of Finance's rules governing grant-financed research activity included in the Ministry of Finance's budget guidelines are to be followed. This implies that project support granted through a process of competition, the overhead as a maximum follow the rates below.

Overheads are calculated as a fixed percentage of direct costs, cf. the rates given below. Direct costs are costs incurred as a direct result of research activities. No overhead can be charged by the Danish institution for funds transferred to their partners.

Institution/enterprise type	Overhead
Danish institutions (including universities and government research institutes) which are subject to the rules regarding grant-funded research activities in the Danish Ministry of Finance's budget guidelines, and which are authorized to carry out grant-funded research activities	44 %
Danish Authorized Technological Service Institutes (GTS-institutter)	20 %
Danish institutions meeting all the following criteria: <ul style="list-style-type: none"> • Receive and are expected to continue receiving a fixed state subsidy of minimum 25 % (measured in relation to total annual turnover) to cover operating costs; • Are non-profit institutions which do not seek to generate profit, and where any profit may not be distributed among the owners; • Carry out research as a central purpose. 	20 %
Public Danish hospitals	3.1 %
Danish state-recognised museums (cf. The Danish Museum Act)	3.1 %
All other Danish institutions and companies	0 %
South-based research institutions (non-profit institutions depending on local conditions)	Max. 20 %

The following general administration costs are considered to be covered by the overhead:

- Management involvement in the co-operation and coordination of the project
- Recurrent office and office set-up expenses (office furniture, rent, cleaning, stationery, transport, electricity and water, support staff, and other general recurrent expenses)
- operating expenses);
- Expenses related to staff carrying out general administrative tasks, such as budget and accounting tasks.

Additional funds cannot be allocated to these types of expenses over and above the overhead.

Administration fees cannot be included for international partner institutions and institutions outside the Danida priority/partner countries; as such institutions can only be supported for their direct services to the project activities (salaries and travel expenses).

A calculated rate per working hour (costs plus overheads) must be used for companies, including private research institutions. Alternatively, a fixed hourly rate may be used. The budget item 'administration fees' must therefore not be used for companies.

Research stays in Denmark of up to six months' duration for researchers from partner institutions

DFC's administrative services for stays in Denmark for senior researchers are optional. The budget figures for 2018 are as follows:

- Accommodation at the DFC hostel – DKK 300 per night.
- Discount for periods of more than 30 days: DKK 225 per night
- Allowance – DKK 1,650 per week.
- Air ticket – budget figure of DKK 9,000 per trip, the actual expenses will be invoiced.
- Residence permit (for stays over 90 days) DKK 2,110 (for each renewal – also for extensions)
- DFC's administration – In addition to the above budget figures, DFC charges an administration fee of DKK 6,000 (incl. VAT) per arrival.

Allow for an annual increase of app. 2.5% on all the budget figures above. The expenses incurred by DFC are not subject to the 44% overhead.

Audit

The annual accounts (Danish and partners') must be audited by an external auditor. If the Danish institution is subject to audit by the National Audit Office of Denmark, a management endorsement to this effect can substitute an annual audit. A statement certifying that the partners' accounts are audited without any qualifications must be included in the annual accounts.

The final accounts must be externally audited, and the audit is to include the entire set of project accounts, including all project partners' accounts. The maximum amount to be used for audits is DKK 30,000 per year and 50,000 DKK for the final audit. The funds for audit are earmarked. Additional expenses will not be accepted, but must be borne by the institution's overhead. The audit is not subject to OH.

9. Application Process

Submission of Phase 2 applications: The deadline for submission of final applications is 24 August 2018, 12:00 hrs. (Danish Time).

Peer review: All Phase 2 applications will be submitted for external peer review to - as far as possible - at least two internationally recognised researchers. DFC appoints the external peer reviewers from those suggested by applicants in addition to peer reviewers identified by DFC. Applicants will have the opportunity to comment on the results of the external peer reviews in a hearing process.

Hearing process: The hearing process concerning the external peer reviews is expected to take place in October 2018.

Final Selection: Phase 2 applications are assessed by the FFU at the end of November 2018, on the basis of the application, the external assessments, and any hearing responses. In the final prioritization by the MFA, only a limited number of Phase 2 applications will be recommended for approval.

Innovation Fund Denmark will endorse the final grant selection.

Responses to Phase 2 applications: Notice on the outcome of the prioritization of Phase 2 applications will be sent to applicants in December 2018. Approved projects can expect to start in early 2019 after receiving and endorsing a final Letter of Grant.

10. Obligations

Applicants should familiarize themselves with the following before using the e-application system and submitting an application.

The responsibility of the applying institution

The applying institution is responsible for ensuring that all information in the e-application is correct, that the required appendices are uploaded with the e-application, that the contents of the appendices are correct and that the e-application has been submitted before the set deadline.

It is not possible to make corrections to an e-application after it has been submitted, except for corrections related to basic applicant information such as change of e-mail address.

In the event of any subsequent substantive changes affecting the information submitted, the applying institution must immediately notify the Research Unit at DFC at research@dfcentre.dk.

The application must reflect possible legal, regulatory or ethical issues and considerations, including required standards or authorization requirements (such as production standards, quality systems, scientific ethics, data handling and protection, use of animals), as well as research permits, provision of information to relevant authorities, etc., and a plan for obtaining these.

Storage of information

When the e-application system is used, the system will automatically register the applicant's identity, IP address, and the time at which the application was created or edited.

Technical disclaimer

The Danida Fellowship Centre is obliged to inform prospective applicants of any system errors that make the e-application system unavailable, affecting the applicant's possibility of submitting e-applications within set deadlines. Information regarding such unavailability or other unforeseen events, will be posted on the DFC website <http://dfcentre.com/research/calls-for-applications/>.

The Danida Fellowship Centre accepts no liability for incorrect information due to software errors, calculation errors, transmission errors and similar errors, or for any claims for damages due to incorrect use of the e-application system.

Data Protection Act

Danish privacy law (Danish Act on Processing of Personal Data, [*Lov om persondata*], no. 429 of 31 May 2000 with subsequent amendments) accords the applicant certain rights when information concerning the researchers involved in the application is processed electronically. Please note that at his or her request, they have the right to inspect and verify personal data if such data are processed electronically.

Rejection of applications without substantive consideration

According to Section 6 of the Executive Order on the granting function etc. under Innovation Fund Denmark (Executive Order no 1150 of 25 October 2017), an application may be rejected without substantive consideration if the formal requirements or deadlines, as set out in these Phase 2 Guidelines are not met.

Other data which may be obtained by official bodies

The MFA and the FFU reserve the right to obtain information about any previous and current applications an applicant may have submitted to the FFU, and this information may be included in processing of the e-application.

In the event that project funding has been or will be applied for from elsewhere, the MFA and FFU reserve the right to obtain information as to whether the amount has been granted.

Use of funding for other purposes

The MFA may, at its discretion, decide that a proportion of the funding available is to be used for other research cooperation.

Announcement

Information about granted projects will be published by DFC: applicant name, title, workplace, title of application and granted amount. In addition, information on participating institutions, project summary, and summary of project progress/results will be published in the Danida Research Portal, <http://drp.dfcentre.com/>. Applicants should, therefore, only include information in these parts of their application (and reporting) that does not reveal information they wish to keep out of the public domain.

11. E-application Information

The Phase 2 Guidelines and e-application system are accessible from DFC's website via the following link: <http://dfcentre.com/research/calls-for-applications/>.

- For login, you must choose the option 'Are you a previous user of Danida Fellowship Centre's electronic application system, click here', using your email address and password from your Phase 1 application (as only pre-qualified applicants can login to the Phase 2 e-application form).
- Select: "W2 Research in growth and transition countries phase 2" select 'Create application', and press 'Continue' until you reach Step 1 where you start entering data.
- Once you have created an application form, you can save and resume work at any time by accessing the "Edit" box on the log-in page to the right.
- If you have forgotten your password or use a wrong password, an e-mail can be sent to your e-mail address with your selected password from Phase 1, by entering 'Forgotten' in the password box.
- Your partners can access the application by using the e-mail address and password created by the applicant institution for login.

Contact

For questions concerning application procedures or content of these Phase 2 Guidelines, please contact the Research Unit at research@dfcentre.dk.

APPENDIX 1

Research collaboration projects in growth and transition countries (Window 2) – country-specific themes

Bangladesh – Occupational health and safety

The economy of Bangladesh is growing fast and the ready-made garments sector is increasingly important. After major accidents in 2012 and 2013 that left hundreds of workers dead, the international community as well as international companies reacted strongly to ensure strengthened regulations for building construction and fire hazards. However, other aspects of occupational health and safety such as chemical hazards, accidents and manual load handling have not been paid similar attention. The objective of Strategic Sector Cooperation is to improve the occupational health and safety for workers in Bangladesh through strengthening the Ministry of Labour and Employment (BMoLE) and the Department for Inspection of Factories and Establishments (DIFE). This will be done by capacity development, improved inspection and through better information and awareness. Further research to address the improvement of occupational health and safety in broad terms would be appropriate.

Brazil – Digitalisation and Innovation

Brazil faces major challenges in terms of developing innovative, user-friendly digital solutions to meet future demands from both citizens and businesses. The focus of Strategic Sector Cooperation is on digitalisation and innovation in the Brazilian public administration and entails developing a sustainable digital infrastructure that enables innovative solutions and creates better business-oriented digitalisation. The main aim is to assist the National School of Public Administration in developing a laboratory for digitalisation and innovation, inspired by and with direct capacity building from the Danish government laboratory called MindLab.

Brazil – Efficient healthcare management

Brazil faces challenges in guaranteeing timely and good quality healthcare for all. Through two “pillars”, Strategic Sector Cooperation aims to ensure better, faster and universal access to quality healthcare services and products by supporting the development of more efficient healthcare management. Pillar 1 focuses on improving healthcare with better systematic use of data, which is considered the key for improving access to timely and quality healthcare as it contributes to optimised treatment, cost efficiency, patient security, coherent patient pathways, etc. Pillar II focuses on improving healthcare by introducing efficient and transparent approval processes for pharmaceuticals, taking into account the overall licensing principles of quality, safety and security.

China – Food safety and agriculture

Strategic Sector Cooperation on this theme is divided into two projects:

- A project dealing with food safety, entailing the establishment of a China-Denmark food safety control cooperation platform to provide basic technical support for food safety supervision and to assist the authorities in achieving safer production, improving the food safety levels and ensuring public health. Two themes dealing with food safety regulation and standards have been identified where the experience and lessons of one country can be used in the other: i) legislation and regulations on food safety supervision; and, ii) food safety testing and evaluation technology.
- A project dealing with animal manure as fertiliser, in which the aim is to develop regulatory guidelines together with the Chinese authorities. Inspiration on how to set-up a regulatory system that aims to create more efficient and more environmentally friendly arable production will be the main deliverable. Two themes dealing with the practical aspects of manure handling and the regulatory aspects at administrative level have been identified, in which Danish experience and lessons learned

can be modified to the Chinese context: i) handling, storage and application of manure; and, ii) regulatory guidelines for promoting the use of manure.

China – Sustainable Urban Development

The city of Beijing is struggling with a wide range of urban challenges such as traffic congestion, air pollution, water scarcity, cloudbursts/heavy rains, flooding and life-style diseases such as diabetes. Encouraged by the immense public demand for a healthier environment, Beijing has reached out to the city of Copenhagen to help tackle sustainability issues. Strategic Sector Cooperation focuses on three main themes: i) sustainable urban development (including infrastructure development, waste management and green energy); ii) climate change adaptation and water management; and, iii) diabetes. Through this cooperation it is intended to support specific urban development projects in Beijing, e.g. the development of the Qinglong Hutong or new Eco-city areas, as well as the improvement of the regulatory framework, plans and strategies for sustainable urban development.

China – Water and environment

There are many serious water resource and environmental problems in China. Key challenges are the lack of enforcement of legislation and weak implementation of government strategies and policies at decentral level. Highest priorities are: i) water resource scarcity, groundwater and surface water management, including flood management; ii) law enforcement on air pollution from traffic and industry; and, iii) law enforcement and investment strategies regarding wastewater. The aim of Strategic Sector Cooperation is to enhance the capacity to address some of the large societal water challenges in a holistic and integrated way with input from Danish experiences and technological solutions. In this context there is a focus on knowledge building in the Chinese institutions responsible for development of guidelines and monitoring as well as enforcement of environmental standards as expressed in two national action plans: Water Ten and Air Ten.

China – Maritime and shipping

Strategic Sector Cooperation between China and Denmark is being developed concerning green and more energy efficient shipping and shipbuilding. A Sino-Danish MoU on green maritime technology, shipbuilding and offshore equipment has been signed. Several areas of investigation within energy-efficient shipping and shipbuilding are relevant. These include:

- fuel consumption and fuel content (Sox, NOx, methane, etc.);
- alternative fuels (LNG, DME, electrification etc.);
- more efficient engine and propeller design;
- marine coating such as antifouling paint;
- improved ballast water systems;
- ship design to reduce greenhouse gas emissions.

Colombia – Veterinary and food safety

The aim of initial Strategic Sector Cooperation is to assist the Colombian authorities in improving the veterinary and food safety systems within the pig meat sector. This will contribute to the objectives of ensuring safer production, safer products, a positive impact on public health, increasing national pig production and accessing the global market for pig meat. Cooperation involves both the regulatory and the technical levels and the main outcome will be to support the Colombian authorities in four areas with regard to veterinary and food safety services. These are: chemical residues; pathogens (salmonella); risk analysis; and food safety at slaughterhouses and meat inspection units.

Ghana – Maritime environment

The Gulf of Guinea is the key trade route and an important livelihood resource for both Ghana and West Africa. A major challenge is to ensure that the economic potential of the Gulf is realised in a sustainable and safe manner. The overall objective of Strategic Sector Cooperation is to build capacity and strengthen

the framework conditions for the maritime sector in Ghana through government-to-government cooperation between the maritime authorities. The specific purposes are to enhance the capabilities in key maritime institutions in Ghana and to promote a maritime regulatory and enforcement environment, which is in compliance with international standards.

India – Smart city water management

India is facing a rapid urbanisation with an expected increase in the urban population of 400 million by 2040. The Government is tackling this challenge by upgrading 100 cities through a Smart Cities initiative, which includes water management. Strategic Sector Cooperation entails working with the City of Udaipur (located in the state of Rajasthan) and the state of Gujarat in their efforts to improve urban water management by identifying efficient strategies and plans for coping with shortages and improving management in an integrated and sustainable manner. The focus is on several sub-sectors including efficient and safe water supply, non-revenue water remediation, sustainable waste water management including sewage treatment and the remediation of lakes and rivers (in Udaipur). It is also intended to use the experiences and lessons from Udaipur and Gujarat to reach the national policy level.

Indonesia – Circular economy through waste management

Indonesia is facing serious waste challenges especially in large and rapidly growing cities, which have to deal with increasing amounts of waste as well as inadequate solid waste management systems. Challenges include the lack of capacity among the many different responsible authorities to implement and enforce the waste regulations, lack of public awareness about waste sorting and recycling and the lack of financing mechanisms. Strategic Sector Cooperation aims to tackle the challenge of improving municipal solid waste management and resource efficiency to address environmental, economic and health issues as well as looking into linkages with industrial waste management. The focus is on addressing environmental challenges in Indonesia within the waste sector as well as the shared challenges in building solutions that may keep more materials “in the loop” – as valuable resources for a sustainable environmental development trajectory.

Indonesia – Energy sector modelling

There are plans to increase power generation capacity in Indonesia by over 60 percent in the next five years, with a significant share from coal-fired facilities. An increased focus on renewables and on energy savings can contribute to the objective of reducing greenhouse gas emissions by 29 percent by 2030. Intensifying the use of expertise pertaining to renewable energy and energy efficiency is a key component of strategic sector cooperation. Within this framework, activities have been developed around energy modelling, planning and integration. Further research on wind resource assessment modelling could complement these efforts. In addition, research into building construction, building codes and energy savings in buildings could be useful in order to deepen understanding of the critical issues and facilitate knowledge-based decision making.

Iran – Protection and enforcement of Intellectual Property Rights (IPRs)

With the lifting of the economic sanctions in January 2016, Iran – with its 80 million inhabitants – is an interesting market for international investment. Enhancing the capacity of the Iranian intellectual property rights (IPRs) infrastructure and making it easier for companies to protect and enforce their rights in Iran will be important as “knowledge intensive” companies consider this a relevant parameter when deciding where they put their investments. Strategic Sector Cooperation between Denmark and Iran addresses constraints in relation to the protection and enforcement of IPRs, focusing on institution building, legal alignment, capacity building and awareness raising. The overall objective is to enhance the capacity of the Iranian institutions in relation to the protection and enforcement of IPRs.

Kenya – Green growth in the manufacturing sector

Strategic Sector Cooperation aims to support and strengthen opportunities for Kenya to pursue green growth in its manufacturing sector, while the Kenyan Industrial Transformation Programme (KITP) under Vision 2030 is promoting the development of the country as an industrial hub in Africa. The thematic focus is sustainable production and circular economy in manufacturing in existing and new industries, including product design, cleaner production processes, solid waste management, wastewater management and industrial symbiosis. Cooperation entails supporting the implementation of the KITP, the Green Economy Strategy Implementation Plan (GESIP) and the National Solid Waste Management Strategy (NSWMS) that all underpin the demand for action and implementation of contemporary measures in the manufacturing sector, where reduced environmental impact, efficiency and higher productivity go hand in hand.

Kenya – Food safety

The objective of Strategic Sector Cooperation is to improve the food safety, food quality and ability to further process healthy food originating from the horticulture and dairy sectors with emphasis on the control of residues and certain contaminants for the benefit of the Kenyan population and for increased export. This entails introducing a more risk-based and preventive approach to food safety aligned with a value chain focus. Food safety issues are addressed in three ways: i) regulatory and operational capacity building in food and feed safety authorities; ii) the development of the food and feed safety control system with an emphasis on value added in the dairy sector; and, iii) development of the food safety control system with an emphasis on value added in the fresh fruit and vegetable produce sectors.

Mexico – Energy planning and wind modelling

There are opportunities for research in connection with energy system planning, regulation and modelling in Mexico. An important issue is how to integrate intermittent sustainable energy sources such as wind and solar power within the energy supply system. There is also a need for research in connection with multi-scale, model-chain evaluation for wind atlases in large regions. This would entail investigation of measurements and uncertainty estimations as well as modelling and control of wind power plants in the Mexican system, e.g. in terms of weak grids and dynamic modelling.

Mexico – Strengthening primary healthcare

Several major development challenges are currently threatening Mexico's healthcare system, including: i) a shift in disease burden from infectious diseases to non-communicable diseases (NCDs) and mental illnesses; ii) inequality in access to quality health services deriving from a fragmented healthcare system characterised by several providers of healthcare; and, iii) incoherence in primary healthcare. Strategic Sector Cooperation aims at strengthening the primary healthcare system in Mexico in the light of the shared challenges in Denmark and Mexico resulting from a growing burden of NCDs and mental illnesses. Three complementary result areas are included: communication and referral mechanisms; IT-systems and digital communication; and efficient use of data equipment and telemedicine.

Myanmar – Labour market reform

In 2011 the government of Myanmar initiated a comprehensive reform process aimed at achieving a more democratic, market-based and socially equal society with prosperity for all. Since 2014, labour market reform has been given priority with the explicit aim of promoting sustainable growth and development. At this point in the reform process, however, there is a need to better understand how the strengthening of labour market institutions can contribute to promoting sustained and inclusive economic growth, full and productive employment and decent work for all, including what are currently the barriers and potential drivers for realizing this potential. Particular focus in research should be given to small and medium-sized enterprises.

South Africa – Water management

South Africa is a water scarce country and is currently facing a looming crisis due to a massive back log in water infrastructure maintenance and investment, as well as recurrent droughts driven by climatic variation and deteriorating water quality. A water research development and innovation roadmap has been developed that identifies research and innovation needs and gaps. The roadmap indicates the following focus areas: i) Unlocking alternative sources of water with reuse, improved groundwater utilization, desalination and harnessing of storm water, where research needs include assessment, monitoring and social dimensions; ii) Exploring ecological (natural water bodies) and built water infrastructure, including landscape level assessment of ecological infrastructure as an alternative to building, the management of ecological infrastructure and “green” water balances (ecological flow assessments; river basin scale hydro-economics; reservoir, river and lake restoration); and, iii) Ensuring greater water efficiency and reduced losses, with associated technical, institutional, operational and social behavioural challenges as well as next generation technology for water efficiency with industries, agriculture and households. Additionally there is need for research into applicable water governance and costing approaches that can unlock the urgently needed water infrastructure investments, thereby making water a bankable business while ensuring the constitutional right to water and sanitation.

South Africa – Renewable energy

The South African Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) has been hailed as one of the most successful renewable energy procurement programmes globally. The programme has brought more renewable energy online in 4 years than the rest of sub-Saharan Africa has achieved in more than 20. Despite this achievement there remain various design and operational features of sector policies, planning processes and operations that require further improvement. These include issues with short to long term energy planning, grid integration of renewable sources, system adequacy for variable energy sources, opportunities for providing baseload through decentralized energy production from variable renewable sources such as wind, biomass and solar power, as well as opportunities for potential inclusion of time-based energy blocks, etc. In addition, there are many countries in sub-Saharan Africa that are planning to embark on renewable energy auctions in the next few years, presenting an important opportunity for South Africa’s experience to be translated into valuable lessons for the rest of the continent through applied research.

South Africa – Sustainable smart city development

The City of Tshwane (Pretoria) is experiencing rapid population growth. In addition, the peculiar urban planning during the apartheid era has resulted in “disintegrated” cities. This puts an immense pressure on the administration to deliver services, housing, infrastructure, safety and employment opportunities. Strategic Sector Cooperation aims to address these challenges and is expected to strengthen the partner’s capacity to develop sustainable solutions for urban planning. Cooperation draws on the experience of the City of Aarhus with sustainable and smart urban development as well as on collaboration with private sector developers and knowledge institutions. The focus will be on: i) the quality of life including safety, diversity, liveability, convenience, leisure and inclusion; ii) growth including knowledge, innovation, employment, value added and investment; and, iii) sustainability including carbon neutrality, clean air and water, recycling, waste to resources, water and energy efficiency.

Turkey – Low-carbon heating and cooling

Strategic Sector Cooperation with Turkey includes a focus on the efficient and low-carbon supply of heating and cooling. Within this context, efficient energy production is also important. Roughly one third of the energy consumed in Turkey is today used for heating and cooling purposes. The authorities are aiming to promote the use of energy efficient and low carbon heating and cooling systems. Currently heat is mostly provided in building-level heating systems and most systems use fossil fuels. Relatively few district energy systems are found while combined heat and power is almost only applied in industry.

Research is needed to explore opportunities for developing energy efficient and low carbon solutions in these sub-sectors.

Turkey – Waste and resource management

Current waste generation and waste management in Turkey represent a significant environmental challenge. Due to economic and population growth, the increase in purchasing power as well as rapid urbanisation, both the amounts of waste and the demand for proper waste, resources and waste water management services will increase substantially in the future. The focus of Strategic Sector Cooperation is on the waste and resource management system with special emphasis on municipal solid waste. There is also initial collaboration on wastewater and sewage sludge management. The main objective is to assist Turkish government agencies and other relevant stakeholders in developing a well-functioning waste and resource management system supporting better enforcement and implementation of legislation to achieve the government's long-term goals.

Vietnam – Food safety in the pork value chain

Strategic sector cooperation includes a focus on food safety in the pig value chain. A key concern is the routine use of antibiotics and other compounds to manage diseases in order to achieve productivity and biosecurity outcomes. Solutions to better manage this and reduce the amount of antibiotics used could include hygiene, biosecurity and disease surveillance measures as well as the prevention of diseases through vaccination. Research is needed to help establish how such measures - along with prudent use practices consistent with a "one health" approach - may be implemented. This would include determining the actual disease risk and status, current livestock farming and antibiotics usage practices, as well as the prevalence and risk of antimicrobial resistance with a view to making recommendations on pathways to improved disease prevention and control practices. It is recommended that the research be interdisciplinary, include an analysis of the role of relevant stakeholders in achieving behavioural change and focus on developing innovative solutions that will work in the Vietnamese context.

Vietnam – Health care

The prevention and treatment of non-communicable diseases (NCDs) in primary healthcare is in focus through Strategic Sector Cooperation. In Vietnam, as in many low and middle-income countries, the existing healthcare system is oriented towards infectious diseases. As a result, the system is poorly equipped to handle the growing prevalence of NCDs. There are direct consequences for especially for the poor, who are affected by the diseases and by lack of access to prevention and long-term care. A reorientation of the healthcare system with investment in the prevention and treatment of NCDs at the primary level and with new attention to patient self-care and involvement is underway. An essential prerequisite for success in this field is knowledge on how NCDs are experienced and handled by patients, relatives and healthcare professionals.

Vietnam – Technical and Vocational Education and Training (TVET)

Literacy among Vietnam's adult workforce is widespread and more so than in other countries, including wealthier ones. However, inadequate skills of job applicants (a "skills gap") and scarcity of workers in other occupations (a "skills shortage") are both identified as major challenges in the next step of industrialisation. The focus of Strategic Sector Cooperation has been on vocational education and training, supporting an enhanced coherence between the Vietnamese TVET system and the labour market addressing skill-gaps and future skills needs. Relevant line ministries and their regional branches are supported to develop tools and mechanisms to implement the parts of the strategy focusing on enhanced cooperation between schools, companies and authorities. Research is needed to assess strategic as well as concrete interests and opportunities for companies and educational institutions to engage in and influence these gaps and shortages in view of the rapid socio-economic and structural development, ongoing privatization and significant international integration of the economy.