

# Call for Applications 2020 – Window 2

## Research in growth and transition countries

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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. While the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 constitute an overall thematic framework for development cooperation and research, the overall objective of the Danish support to research cooperation is to contribute to new solutions with new knowledge. In accordance with this objective, grants will be awarded to strategic research cooperation which generates new knowledge relevant to the needs and strategies of partner countries, to Denmark’s cooperation with these countries as well as including substantive elements of research capacity strengthening.

Within this framework, the MFA invites **Phase 1 applications** for grants related to development research with partners in selected growth and transition countries (**Window 2**)<sup>1</sup>. Phase 1 is the first step of a process in which applicants submit **project ideas** leading to prequalification. Phase 2 is the submission of a full application by those selected in Phase 1 (“prequalified”).

For research projects granted under the 2017 application round, the responsible institution is invited to submit an application to be considered under the present Call, which may be granted as an extension project. The announced research themes, eligible countries, time and budget frames as well as other selection conditions stated in this Call will apply to such applications.

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<sup>1</sup> The Call for research in Danida priority countries (Window 1) is available at <https://dfcentre.com/research/calls-for-applications/>

The deadline for submission of Phase 1 applications in Window 2 is **31 January 2020 at 13:00 CET**. Applications must be submitted in English and electronically via DFC e-application system (e-fond).

The Danida Fellowship Centre (DFC) administers the MFA's support to development research. For questions concerning the application procedures and in general relating to this Call for applications, please contact the Research Unit at DFC at [research@dfcentre.dk](mailto:research@dfcentre.dk).

An information meeting concerning the 2020 Calls will be held at University of Southern Denmark (SDU Odense) on Tuesday 19 November 2019. Please see link <https://dfcentre.com/research/calls-for-applications/> for more information.

## **2. Eligible countries**

The research must be implemented in one of the following growth and transition countries involved in the Strategic Sector Cooperation with Denmark: Bangladesh, Egypt, Ethiopia, Ghana, Indonesia, Kenya, Myanmar, South Africa, and Vietnam.

## **3. Research themes**

The thematic focus areas of the Call are:

1. Renewable energy
2. Environment, including manufacturing, urban development and waste
3. Water resources, including urban water
4. Food quality
5. Health systems including occupational health and safety (OHS)
6. Maritime development

The country-specific themes are available in Appendix A.

*See under "Useful links" for information concerning the Danish Strategic Sector Cooperation and the role of sector counsellors.*

## **4. Project duration and grant**

The total budget available for this research window is approximately 80 million DKK. This includes an allocation for extension of research projects funded in 2017 applying within this Call. The funding is conditional on approval by the Danish Parliament of the 2020 finance bill. The expected duration of projects is from 18 to 36 months with a maximum grant of 5 million DKK for each project.

## **5. Main applicant**

Applications can only be submitted by universities or by a research-based institution (public and private) in Denmark, which will be responsible for the grant. The project coordinator must have an affiliation to the applying institution.

At the time of submitting the application, the project coordinator must hold a PhD or equivalent qualification, documented clearly in the CV. Documented evidence that he/she is a Professor, Assistant Professor, or Associate Professor is regarded as equivalent to a PhD.

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

It is important that the project coordinator and the research team are able to document relevant scientific merits and qualifications as well as a research background within the topic applied for. A person may appear as project coordinator on several applications, but only one project per project coordinator may be approved for this funding window.

## **6. Project participants**

The application must list all partner institutions, including partners in growth and transition countries and possibly international partners. At least one researcher from each partner institution (project participant if private sector partner) must be named in the Phase 1 application, including the project coordinator (Step 1A of the application form).

Research collaboration is considered an important means to strengthen research capacity. In order for research partners to benefit from the collaboration, partnerships should be equal, and partners should be able to contribute actively in preparing both Phase 1 and Phase 2 applications. 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 direct input to project activities, but not overhead expenses. Such partners are encouraged to contribute with additional resources (funding or in-kind) for the projects. International research institutions and research institutions in countries outside Denmark and outside the growth and transition countries can equally be supported by the grant for their direct input to the project activities with no overhead.

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.

## **7. Description of project idea**

The description of the **project idea** must be structured according to the indicated headings 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 4 pages (10,000 characters, including spacing) plus references.

### **Heading 1: State of the art, rationale, and relevance**

Background to project objectives:

- Based on a state of the art literature review and a broader development rationale, explain how the research project will provide new knowledge in the scientific field concerned;
- Highlight how the proposed project relates to prior and on-going research in the specific field about which the applicant is aware;

Describe the project's importance in relation to:

- The chosen research theme;
- National development priorities in the partner country related to specific Sustainable Development Goal(s);
- The strategic sector cooperation. Include an indication of the strategic relevance for the proposed partner institution(s), notably their envisaged involvement in terms of time and resources in the project;
- Relevance towards the public and/or private sector where appropriate.

### **Heading 2: Objectives and results expected**

- Describe project objectives, including clearly identified research questions and possibly research hypotheses;
- List the main expected scientific results and an indication of the research capacity strengthening.

### **Heading 3: Indicative project methodology**

Outline the methodology, research design, and approach to research capacity strengthening in general terms.

Applicants seeking funding for an extension of a project funded in 2017 are required to summarise progress and results since 2018 as well as a justification for continuation of the project.

## **8. Assessment**

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.

Prior to the FFU assessment, sector counsellors at the relevant Danish embassies are invited to assess the relevance of the project idea to the country and theme specific objectives of the Danish Strategic Sector Cooperation and will consult the relevant Danish authorities during their assessment.

The FFU assesses Phase 1 applications on the basis of three criteria as described below: i) scientific quality; ii) relevance; and iii) the potential effect of the research.

The scientific quality of the proposal is evaluated on the basis of the following criteria:

- *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 of the proposal is evaluated on the basis of the following criteria:

- *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 the Danish strategic sector cooperation in the country;*
- *Preferably, the project includes public and private sector partners.*

The effect of the research is evaluated on the basis of the following criteria:

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

It must be clear that the proposal constitutes a genuine research project rather than being a registration of data, commissioned research, a product development, demonstration project, technology transfer, consultancy, or development project.

In the assessment of applications for a continuation of a previous grant, the value-added of an extension project will be considered, including how the extension project builds upon the outputs and outcomes of the previous grant.

On the basis of the FFU assessment, MFA makes a decision on which applicants should be invited to apply in Phase 2 of the application process. In Phase 2, feasibility of the proposed research project will also be a criterion for assessment. Refer to “Useful links” for Phase 2 guidelines from 2019.

International peer reviewers are involved in the assessment of scientific quality in Phase 2. The final scientific quality assessment is conducted by the FFU and approved by the Innovation Fund Denmark, cf. section 5, subsection 1 of the Act on Innovation Fund Denmark no. 306 of March 29, 2014, amended in Act no. 384 of April 26, 2017.

If the total number of qualified applications exceeds the available funding allocation, the MFA will select the best projects based on the FFU assessment of the above criteria and consider an even distribution between the countries. If and when required, the MFA will conduct a hearing process in accordance with § 19 of the Danish Public Administration Act.

MFA may make the processing of new applications by the project coordinator conditional on compliance with the terms and conditions of previous MFA grants.

## 9. Application process Window 2

Phase 1 – 2020	Jan - Feb	Deadline for Phase 1 applications: <b>31 January 2020 13:00 hrs CET</b> DFC administrative screening and administrative rejections Embassy reviews of relevance
	March	Embassy reviews of relevance Applicant hearing process, if and when required (§ 19 of the Danish Public Administration Act)
	April - May	FFU's assessment of applications MFA selection - prequalification Reply to applicants Invitation and instructions to a full Phase 2 application
Phase 2 – 2020/21	Aug	Deadline for Phase 2 applications: <b>21 August 2020 13:00 hrs CET</b> DFC administrative screening and administrative rejections
	Sept - Oct	Peer reviewing (normally two for each application) and applicant hearing
	Nov	FFU's assessment of Phase 2 applications
	Dec	Innovation Fund Denmark's approval of FFU's scientific quality assessment MFA selection Reply to applicants Letters of Commitment to approved projects
	Jan - Feb	Budget reallocations, etc. <b>Letters of Grant</b>
	Jan - Feb	<b>Granted projects endorse Letter of Grant and can start up project activities</b>

## 10. Project costs

In the Phase 1 application an estimate of the grant applied for must be indicated. The total grant cannot exceed 5 million DKK for an 18-36 months' project. Other funding sources and an estimated total project cost should be indicated.

Approximately the same level of researcher work time (in man months) on the project is expected between Danish researchers and researchers in the partner country. It is expected that research institutions in partner countries will provide a monetary or in-kind contribution to the project (salaries, equipment or materials). The actual level of co-funding expected will be agreed during preparations for phase 2 applications. For Window 2 projects granted in 2017 applying for an extension project, it would be expected that a substantial co-funding is provided from public or private partners. Co-funding from the Main Applicant is encouraged.

For international research institutions, partners in countries outside the growth and transition country, national authorities and private sector partners, the budget can only include salaries and travel expenses covering their direct input to the project activities, and no administration fees can be covered.

### **Eligible costs**

It will be possible to apply for funding for the following budget items:

- Salaries and emoluments;
- Expenses for trips abroad and fieldwork;
- Project and research materials and equipment;
- Publication, dissemination and communication;
- Administration fees (overhead);
- Research stays in Denmark for researchers from partner institutions of up to six months' duration;
- Annual external audit and a final project audit.

Guiding principles for budgeting in Phase 2 are available under "Useful links".

## **11. E-application information and content**

Submission of a Phase 1 application must be done via DFC's e-application system. The e-application system is accessible [here](#).

Before the electronic application system is accessible, you will need to register yourself with your e-mail address and password – click on/use the link "If you have not previously used Danida Fellowship Centre's electronic application system click here". If you have several e-mail addresses, please note that acknowledgement of receipt of the application will be sent to the e-mail address used as your user name in the system. Shortly after submitting the application, the applicant will receive an e-mail acknowledging receipt. If the acknowledgement receipt is not received within 2 hours, the applicant should send an e-mail to [research@dfcentre.dk](mailto:research@dfcentre.dk) to enquire whether the application has been submitted. This should be done before the deadline, since applications will not be accepted after deadline.

- To create an application, select the application form "W2 Research in growth and transition countries phase 1".
- Once you have created an application form, you can save and resume work at any time by accessing the "Edit" box at the log-in page to the right.
- If you have forgotten your password, please type any password in the box, and by doing this, an e-mail with your correct password will be sent to your e-mail address.

- Your partners can access the application by using the same e-mail address and password.

The Phase 1 application must comprise the completed **e-application form, CVs, and signatures**. All steps (including Step 1A) in the e-application form must be completed, and the application and appendices must be completed in English. Only the required appendices will be considered. The total volume of the appendices must not exceed 25 MB. The appendices must be named: “Appendix (letter) - name of project coordinator”.

**Appendix A - CVs:** A front page of the appendix must be inserted, listing the CVs of the project coordinator and all other researchers and project participants named in the application form Step 1A, listed in the order in which they appear.

The CVs must specify the scientific qualifications, managerial skills, and experience from developing countries, and must include a list of key publications and patents relevant for the application. The length of the CVs must be no more than 2 pages per person. Signature on CVs is not required. Please note that submitted CVs for researchers who are not named in Step 1A will not be part of the assessment.

The table of contents and all CVs must be compiled in a single PDF file in which each CV starts on a new page.

**Appendix B – Signatures:** This appendix must include scanned signatures of the project coordinator and the Head of the Responsible Institution/Department as per the mandatory template available in the e-application form, Step 5 and be uploaded as a PDF file.

It is advised not to wait until the last minute before deadline to submit the application, to account for any unforeseen issues on the applicant’s side.

## 12. 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 deadline of the Call.

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

In the event of any subsequent material changes affecting the information submitted, the applying institution must immediately notify the Research Unit at DFC at [research@dfcentre.dk](mailto: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 and data protection**

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. All personal data will be processed, stored and deleted in accordance with the EU General Data Protection Regulation (GDPR) and the [DFC Privacy Policy](#). We also refer to the [privacy policy of Innovation Fund Denmark](#) being the institution approving the scientific quality assessment of the FFU in Phase 2 of the application process.

### **Technical disclaimer**

DFC is obliged to inform prospectively applicants of any system errors that make the e-application system unavailable, affecting the applicant's possibility of submitting e-applications within any deadlines. Information regarding such unavailability, and other unforeseen events, will be posted on the [DFC website](#).

DFC 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.

### **Rejection of applications without substantive consideration**

An application will be rejected by DFC without substantive consideration by the FFU/NSC and the MFA if the requirements concerning the eligibility of applicants and countries, the application format and attachments and the deadlines as set out in this Call for applications 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 which 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 the 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**

Once the submitted Phase 1 applications have been processed, an announcement will be made on the [DFC website](#), as to who have been invited to submit a Phase 2 application. In support of that announcement, the following information may be published on the internet: applicant's name, title, workplace, title of application and expected application amount. The purpose of this is to enable applicants to apprise themselves of other prospective programme applicants and research activities and possibly form their own networks with a view to submitting joint applications.

Information about applicants who are not invited to submit a Phase 2 application may be disclosed in the event that access is applied for according to the Danish Public Records Act (Offentlighedsloven). Access to such information may be granted in the form of lists of who has applied and for what purpose (applicant names and application titles). Applicants should, therefore,

ensure that their application title does not reveal information about the activity which they wish to keep out of the public domain.

### **13. Useful links**

[Sustainable Development Goals](#)

[Strategic Sector Cooperation](#)

[The Consultative Research Committee \(FFU\) and National Screening Committees](#)

[Guide to making a good application by FFU](#)

[Guide to the role of sector counsellors](#)

[Guide to e-fond application system](#)

[Invitation and guidelines for Phase 2 applications 2019 \(for reference\)](#)

[Guiding principles for budget making in Phase 2 W2 \(for reference\)](#)

## **Appendix A – Research themes for Window 2**

The global 2030 agenda and the seventeen United Nations Sustainable Development Goals (SDGs) constitute an important framework for development cooperation and for funding research.

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 proposed.

As indicated, the thematic focus areas of the Call are country specific and have been determined on the basis of the focused Strategic sector cooperation (SSC) agreements in each of the countries.

### **1. Renewable energy**

#### **Egypt**

Egypt possesses an abundance of land as well as high wind potential, making it a prime location for renewable energy production. There are currently both opportunities as well as the political will to transform the energy sector in Egypt from being based mainly on fossil fuels to renewable energy, as noted in both the sustainable development strategy for 2030 and the renewable energy plan for 2035. The Government intends to supply 20 percent of generated electricity from renewable sources by 2022 and 42 percent by 2030. Simultaneously there is a strong focus on energy efficiency, especially in the many new cities that are being constructed in order to ease the pressure on the population growth in Cairo. Strategic sector cooperation (SSC) will focus on wind energy. Research into topics such as power sector planning and modelling, the integration of renewables in the power sector and project development would complement the SSC. The regional dimensions concerning energy integration in North Africa and/or Middle East as well as district heating/cooling and smart grids would also be potential research areas.

#### **Ethiopia**

Ethiopia has immense renewable energy generation potential based upon its natural resources (hydro, wind, solar and geothermal). It is a high priority for the Government to expand the electricity generation capacity to cover national demand, as well as to export electricity to neighboring countries. Current electricity generation is dominated by hydro-power, but the planned capacity expansion will be more diversified and geographically distributed, with a significant share of wind, solar and geothermal power generation. The Ethiopian power system is characterized by excess demand and lack of stability reducing the security of supply as well as frequent outages. It is a target to enable access to electricity for all by 2025. In this respect further research would be useful, covering topics such as the role of water as both a source for irrigation and for balancing electricity systems, the integration of renewables into mini-grids and data availability concerning renewable resources like wind.

#### **Indonesia**

There are plans to increase power generation capacity in Indonesia by over 50-60 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 overall 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 (SSC). Within this framework, activities have been developed around energy modelling, planning and integration. Another topic is interconnection and developing smart grids to increase flexibility, robustness and energy security.

Further research on energy modelling, the integration of renewable energy and energy markets could complement these efforts.

## **2. Environment, including manufacturing, urban development and waste**

### **Indonesia**

Indonesia is facing serious waste challenges especially in large and rapidly growing cities. City governments have to deal with increasing amounts of solid waste with inadequate management systems. Challenges include the lack of capacity among the many different responsible authorities to enforce the waste regulations, lack of awareness on waste reduction, recycling and the benefits of the circular economy amongst the government, the private sector and the general public. There is also a lack of separate financing mechanisms for waste management. Strategic sector cooperation (SSC) aims to improve municipal solid waste management and resource efficiency through the concept of the circular economy thereby addressing environmental, economic and health issues. Research is needed to: i) model the concept of the circular economy with various Indonesian stakeholders in order to foster public-private partnerships within the area of solid waste management as well as other sectors; and ii) address barriers and challenges affecting the development and implementation of regulations and policies to improve framework conditions within the sector of solid waste management.

### **Kenya**

Strategic sector cooperation (SSC) aims to support and strengthen opportunities for Kenya to pursue the green and circular economy. The focus and starting point is resource efficient industrial production and industrial development with a perspective of structural changes in the wider ecosystem, e.g. urban development, water and waste utilities management as well as material flows. The SSC is based on a multi stakeholder cooperation between Danish and Kenyan environmental authorities, research institutions, organizations and the business sector.

The existing and proposed future SSC interventions are: provision and advocacy for policy development and systemic change in the environment sector and its affiliated and dependent sectors. Focus areas will include environmental data provision and management, waste management, water management, cleaner production, enhanced regulatory and circular business models, sustainable industrial clustering and design and innovative circular models for urban planning and development. Key areas of strategic interest are interventions that can help in the increase of resource productivity and economic growth, in particular within food waste systems and organic residuals/bio-economy, water and wastewater, housing and construction, models for recycling and refurbishing, packaging, systems optimization and capacity utilization, financial and market acceleration models, and production optimization.

An established public private partnership comprising research institutions, public authorities and 35 diverse manufacturing companies located in a mixed industrial area with human settlements is the key practical basis for the SSC. However, the approach is nationwide and it is intended to expand areas of collaboration. Within the framework as outlined there are numerous possible research topics associated with developing the circular economy.

### **South Africa**

Skewed and segregated socio-spatial planning during the apartheid era has resulted in “disintegrated” and fragmented South African cities. The City of Tshwane (Pretoria) is experiencing rapid population growth, urban sprawl and inner city dilapidation. This puts an immense pressure on the administration to transform the social and urban landscape and deliver

services, housing, infrastructure, safety and employment opportunities. Strategic sector cooperation (SSC) address some of these challenges through a city-city collaboration that seeks to strengthen the City of Tshwane's integrated planning methodologies. The collaboration draws on City of Aarhus's best practice planning tools, experiences with innovative project organization as well as technical solutions. Private sector developers and knowledge institutions in both countries are an integrated part of the collaboration with regard to technical solutions, knowledge transfer and capacity building. The focus of the SSC is on: a) green and non-motorised transport; b) water; c) public spaces; d) mixed-use developments; and e) housing. Research into the dynamics of sustainable cities would be a valuable complement to these efforts.

### **3. Water resources, including urban water**

#### **Ghana**

In Ghana there is a movement from rural to urban areas and the population of the big cities is growing fast. People are seeking improved services, infrastructure and livelihoods. The largest urban area and main growth center is the Greater Accra area, that includes the City of Tema hosting the industrial hub of the country and the biggest port of West Africa. On one hand, a growing urban population is an asset for growth but on the other hand it is also putting a significant pressure on livability and sustainability of the city, e.g. in the area of water and waste water management. Water for all is at the core. In addition, changing climate conditions are a challenge for the resilience of the city, its growth and population. A gradual change requires long-term integrated planning and adaptation.

A new Strategic sector cooperation (SSC) aims to address these challenges and focuses on water and cities, involving the City of Aarhus and Aarhus Vand (water) together with the City of Tema and the Ghana Water Company. Final agreements on specific activities are being prepared and the startup of the first 3 year project is expected in January 2020. In this context the following overall research needs and topics have crystalized: i) Socio-economic impact in the city of Tema of climate change and its related water infrastructure challenges; ii) Urban planning requirements in a city characterized by informal development; iii) Financial feasibility of the provision of water and wastewater management in an urban context (including resource efficiency, financial, legal and societal incentives, tariff structures, subsidies and willingness to pay); and iv) Innovative approaches and models for reduction of non-revenue water and improvement of wastewater management.

#### **South Africa**

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 further 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 water 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.

#### **4. Food quality, including food safety**

##### **Kenya**

The objective of Strategic sector cooperation (SSC) 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. Further research on these topics would be beneficial.

##### **Indonesia**

The governments of Indonesia and Denmark have agreed to explore the potential and benefits of Strategic sector cooperation (SSC) within the dairy sector, since the Government perceives dairy sector development as means to increase economic wealth, welfare, the standard of living, nutritional status, independence and self-sufficiency. The Government's ambition is to promote sustainable development of the dairy sector in order to contribute to the improvement of food safety and secure supplies. National dairy production only covers 24% of the national demand, making the country highly dependent on imports. In addition rapid population growth, especially children of school age, puts the country under enormous pressure to satisfy the domestic demand of milk. Production is based on small-holder farms with very low capacity, low production, limited resources and often limited framework conditions.

The Government is developing an integrated action plan to tackle undernourishment amongst children through the introduction of fish, eggs, milk and green beans in diets, as well as improving parental care and sanitation. Research could focus on the regulations in milk production, hygiene, food safety and animal welfare. Regarding child nutrition, research into the effectiveness of the public health regulation could be a starting point.

##### **Vietnam**

Strategic Sector Cooperation (SSC) between Denmark and Vietnam focuses on food safety in the pork value chain. A key concern in Vietnam is the routine use of antibiotics and other compounds to prevent and manage diseases in order to sustain productivity and as part of biosecurity measures. There is an urgent need to reduce the use of antibiotics through, e.g., the implementation of prudent use practices related to antibiotics, improved hygiene and biosecurity measures, disease surveillance and disease prevention through vaccination.

Research is needed to guide the adoption of prudent antibiotic use practices with a starting point in the legislative framework in Vietnam and consistent with a "one health" approach. This may include determining the actual disease risk and status, as well as drivers of current antibiotics use practices and antimicrobial resistance. It is expected that the research will be inter-disciplinary and include intervention and solution-oriented activities with a view to determine the role of relevant stakeholders in achieving behavioral change in antibiotic use practices. Finally, the research should

recommend innovative solutions to reduce antibiotic use and resistance that will work in the Vietnamese context.

## **5. Health systems including occupational health and safety (OHS)**

### **Bangladesh**

The economy of Bangladesh is growing fast and the readymade garment sector is the backbone of the economy as a source of employment and export earnings. After large scale deadly accidents in 2012 and 2013, the international community, including international textile companies, reacted strongly to ensure control and improvement of textile factory safety with a focus on building construction and fire hazards. However, other aspects of occupational health and safety and other sectors have not received similar attention. A number of occupational and environmental risks are present in Bangladesh across all sectors.

The objective of Strategic sector cooperation (SSC) is to improve worker's occupational health and safety in Bangladesh through strengthening the Ministry of Labour and Employment (MoLE) and the Department for Inspection of Factories and Establishments (DIFE) by use of Danish authority (DWEA) systems and knowledge. While the first phase focused mainly on the education of master trainers and development of national guidelines with a focus on the textile sector, the second phase focuses on: i) Master trainers; and, ii) Management and planning within DIFE and MoLE. An increased focus on other sectors with significant risks (e.g. construction, shipbreaking) is foreseen. Thus, further research to address the improvement of occupational health and safety in broad terms, including environmental concerns, would be appropriate.

### **Myanmar**

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. A particular focus in occupational health and safety research should be given to small and medium-sized enterprises.

### **Vietnam**

The prevention and treatment of non-communicable diseases (NCDs) in primary healthcare is in focus through Strategic sector cooperation (SSC). 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. Therefore, further research into these topics would be highly beneficial.

## **6. Maritime development**

### **Ghana**

The Gulf of Guinea is the key trade route and an important livelihood resource for both Ghana and West Africa. More than 90 percent of traded goods are transported by sea. As of July 2019, Ghana possesses one of the most advanced and deepest container terminals on the African continent.

Within five years, Ghana expects to enhance container-handling capacity from 800,000 to 3,500,000 containers per year. A growing middle class and focus on infrastructure projects makes this prospect seem within reach.

Major challenges are to ensure that the economic potential of the Gulf is realised in a sustainable and safe manner and to combat piracy, presently on the rise. The overall objective of Strategic sector cooperation (SSC) is to build capacity and strengthen the framework conditions for the maritime sector in Ghana through government-to-government cooperation. The specific purposes are to enhance the capabilities in key maritime institutions and to promote a maritime regulatory and enforcement environment compliant with international standards.

As Ghana and Nigeria are collaborating on a maritime security programme, research themes could include maritime security and the commercial and economic impact of piracy. Other themes could be the socio-economic impact of port expansion and other maritime infrastructure investments, and political-economy of modernising and streamlining container handling. Finally, as fisheries issues may be included in future SSC activities, and the Fishery Act of 2002 is expected to be revised, the sustainable use of the maritime domain such as fisheries and the coastal environment could be relevant topics.

### **Kenya**

The overall objective of Strategic sector cooperation (SSC) between Denmark and Kenya will be to promote economic growth and capacity development through improved framework conditions for the Kenyan maritime sector, which contributes to establishing favourable prerequisites for a free competition and a maritime level playing field that benefits both countries. The specific purposes are to enhance the capabilities in key maritime institutions in Kenya through government-to-government cooperation.

The government of Kenya has signed a deal to expand the port of Mombasa, seeking to boost efficiency at the key transport hub of East Africa. Further research into, inter alia transport efficiency, the integration of hinterland terminals, liner shipping connectivity and port infrastructure on trade flows, job creation, etc. could complement these efforts.