Call for Proposals
Food Security
2nd Cycle

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QNRF-MME Collaboration

Food Security Call

Qatar National Research Fund

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وزارة البلدية والبيئة
Objectives

- Enhance Food Security measures in Qatar through investing in applied research in the main pillars of Qatar’s National Food Security Strategy.

- Harness local and external expertise and knowledge in Food Security related science and technology to develop solutions for the local Qatari conditions.

- Ensure that trade routes are diversified so that risk-exposure is limited
- Contingency plan for alternative routes as needed

- Move food from port, field or reserves to table as efficiently as possible (i.e., limiting food losses/waste), with regulations that foster competition and encourage safety

- Put in place adequate but sensible reserve capacity to act as a buffer in time of crisis, both for inputs (water, seeds, fertilizer) and outputs (food products)

- Efficiently cultivate crops, meat and fish within the confines of a Qatar’s resource base to ensure a stable source of perishables in times of crisis
- Provide a regulatory framework that creates incentives to focus on commodities that make sense from a cost-competitiveness point of view
Achievements so far:

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFSI Global rank</td>
<td>20&lt;sup&gt;th&lt;/sup&gt;</td>
<td>29&lt;sup&gt;th&lt;/sup&gt;</td>
<td>22&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>13&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>GFSI Regional rank (MENA)</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
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**Rank: 1**

- **Affordability Score:** 98.9

**Rank: 38**

- **Availability Score:** 64

**Rank: 13**

- **Quality & Safety Score:** 84.1

*Global Food Security Index 2019: (https://foodsecurityindex.eiu.com/Index)*
Priority Areas (*)

- Technology to accelerate local production and improve productivity of high-quality vegetables and/or animal feed
- Local supply chain
- Technology to accelerate the development of highly productive and healthy animals, including combating epidemic diseases
- Sustainable aquaculture

*In alphabetical order
MME Resources

• Researchers participating in the Food Security call are strongly encouraged to benefit from the resources of the MME, including its facilities, data, and expertise which will be available for free if the proposal is awarded.

• Utilization of MME resources is one of the evaluation criteria.
MME Resources

Agriculture Sector

Animal Resources
Agriculture Research
Fisheries
Agriculture Affairs
Food Security

Departments with labs and/or research centres
Data and statistical departments
MME Resources

Call researchers free access to the indicated facilities and researchers will be able to:

1. Access the laboratories, test facilities, fields, etc..
2. Receive support from teams at these indicated facilities (including researchers and technicians).
3. Use equipment at the facilities.
4. Access material and supplies needed to run the experiments at the indicated MME facilities
5. Use logistics at the indicated facilities, e.g., transportation, documentation, admin support, etc.
6. Access data and data sets relevant to the project at the indicated facilities.

List of facilities is available on [http://www.mme.gov.qa/cui/view.dox?id=1588&contentID=7540&siteID=2](http://www.mme.gov.qa/cui/view.dox?id=1588&contentID=7540&siteID=2)
Research Facilities

Facilities for agricultural sector research Equipped with the newest technology and equipment To conduct research specialized in Plant and animal wealth and fish.

Divided to:
1. Animal Research facilities (veterinary laboratory).
2. Agricultural research facilities.
3. Fisheries research facilities (Aquatic research center).

Research Facilities (Click Here)
MME Resources

• For proposals utilizing MME resources, a supporting letter (template available on the call’s webpage) from MME should be signed and stamped from the MME.

• For MME supporting requests, please use the email; KIbrahim@mme.gov.qa, and arfcsecretary@mme.gov.qa

• The MME supporting letter should be uploaded as part of the proposal submission.
<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Description</th>
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</thead>
</table>
| Parasitology Lab                  | - Immunological examination of parasitic diseases using the coagulation and Elisa test  
- Microscopic examination of the classification and diagnosis of parasitic diseases. |
| Biotechnology Lab                 | - Diagnosis of viral, bacterial and parasitic infectious diseases using PCR technique.                                                    |
| Virus Lab                         | - Examination and diagnosis of viral diseases using the ELISA device and viral isolation in embryos and cell culture using specialized devices.  
- Conducting the serological surveys in cooperation with the Center for Epidemiology. |
| Pathology Lab                     | - Blood samples checked through the automatic analysis device.  
- Examination of urine, tissue and other body fluids  
- Sick and dead animal dissection |
| Microbiological Lab               | - Serology Lab: It conducts serological tests for several diseases such as Brucella and contagious abortion  
- Bacterial Isolation lab: isolates bacteria, classifies aerobic and anaerobic microbes, and determines the sensitivity of antibiotics through specialized devices |
| Samples Reception and Separation Unit | - Analyze serum samples through an automatic chemical analysis device.  
- contains a laboratory for separating common samples through centrifuge  
- Unit receives samples from the various veterinary centers in the country, arranges them according to the laboratories, and sends them to the laboratories. |
## Agriculture Research

<table>
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</table>
| **Plant tissue culture Research Unit** | - (2) Incubation rooms, (1) Preparation room, (1) Culture room.  
- The laboratory is equipped with devices and equipment including incubators, autoclaves for sterilization, Laminar flow hood for culturing and other devices for tissue culture media preparation and culturing |
| **Biotechnology Lab**                  | - Two laboratories for DNA extraction, Polymerase chain reaction and electrolytic migration, Biotechnology laboratory.                                                                                       |
| **Animal Research Department**         | - Biotechnology Laboratory, Artificial Insemination Laboratory, Sheds of sheep, goats, camels, oryx and deer                                                                                                   |
| **Genetic Resources Department Gene bank** | - Reception and processing room for (Seed and herbarium samples).  
- Herbarium samples preparation laboratory.  
- Seed quality laboratory, (seeds health, seeds vitality microscope, and stereomicroscope).  
- Herbarium preservation Units (for the preservation and storage of herbaceous samples).  
- Conservation Units “units of storage of seed accession for short and long term conservation +4 °C , -5 °C - 22 °C and -80 °C ). |
| **Plant Pathology and Protection Unit** | - Lab1 for the diagnosis and identification of various pathogens affecting plants.  
- Lab2 for soil microbiology, soil testing, nematode detection, and microbial counting.  
- Lab3 seed healthy test and Definition and imaging of microscopic slides. |
| **Soil and Water Laboratory**          | The labs has all equipment to conducting all chemical and physical analyzes of soil and water in addition to - nitrogen - phosphorus - micronutrients - heavy elements) |
## Agriculture Research

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<tr>
<td>Plant Feed and Fertilizers Laboratory</td>
<td>Analysis of fodder, fertilizers and plants, including moisture, dry matter, protein, nitrogen, ash, purity, impurities, and other grains (fiber, fats), phosphorus, potassium, organic matter, and heavy elements.</td>
</tr>
<tr>
<td>The bio saline Agriculture Research Station</td>
<td>Contains about 12 varieties of anti-salinity plants with biomass and fodder and pastoral seeds that allow utilization of overly salty sabkha soils and by using treated wastewater in irrigation. Devices and equipment: Contains salinity, pH and soil moisture measuring devices e.g. soil sampling auger, EC Meter, PH Meter, Tensiometer, neutron probe.</td>
</tr>
<tr>
<td>Rawdet Alfaras Research Station</td>
<td>Includes 24 fields used for open field cultivation and is specialized in research: Field crops and fodder, wild pastoral and medicinal plants and pasture rehabilitation, palm research.</td>
</tr>
<tr>
<td>Al Qashamiya Research Station</td>
<td>A farm with a size of 156,936 square meter is made for Qatar National Project for range rehabilitation and improvement of pasture in Qatar. It has three wells and one electrical generator.</td>
</tr>
<tr>
<td>Horticulture and Protected Agriculture Research Station</td>
<td>Horticulture and Protected Agriculture Research Station is located in Al Otouria Village, 55km from Doha. Contains Cooled and None-cooled Greenhouses, And Open fields. Major Purposes: Execution of Agri. Researches related to Vegetables. Cooperation with Local and International organizations for Agriculture in Qatar.</td>
</tr>
</tbody>
</table>
## Aquatic Research Centre

<table>
<thead>
<tr>
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</table>
| **9 Scientific Laboratories** | 1. Marine Invertebrate Laboratory and Histology  
2. microorganisms preparation laboratory  
3. parasites and bacteria laboratory  
4. Chemical preparation laboratory  
5. Oceanography and Aquatic Chemistry Laboratory  
6. Feed Analysis Laboratory  
7. Physiology and fish ages Laboratory  
8. plant and animal plankton laboratory  
9. Crustaceans and shellfish biology laboratory |
| **Wet Lab** | - Has 3 laboratories to measure water quality and fish health and to conduct marine research.  
- Contains three aquaculture farm rooms equipped with a closed water circulation system. |
## Aquatic Research Centre

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</table>
| **Fish Farming units**      | There are 9 production units  
1. Sea water treatment and pumping station for fish and shrimp production units: It includes a mechanical filter system, a thermostatic system, and a UV sterilizer  
2. Shrimp hatchery with a capacity of 2 million larvae during a single cycle: it includes a mothers unit, a larval unit, a nursery unit and the adopted culture system is a semi-closed water circulation system.  
3. A marine hatchery with a capacity of 2 million fingerlings during a single cycle: it includes a mothers unit, a larval unit and a nursery unit. The adopted culture system is a closed water circulation system.  
4. Live Food Production Department: It produces phytoplankton, currently represented by 4 varieties of microscopic algae, as well as zooplankton, namely artemia and rotiver.  
5. Quarantine unit to examine fish before entering the production units.  
6. Wastewater treatment plant to filter and sterilize used sea water before returning it to the sea  
7. Oxygen Production Station: It includes 3 separate oxygen production and storage systems.  
8. Seawater desalination station.  
9. Feed store. |
Grant Size

- Each award is up to **US$ 200,000** per year and up to three years with total budget up to **US$ 500,000**.
Application Types

- New
- Resubmission
Eligibility: Proposal

• The proposal must be within the specific research areas of the call.
Eligibility: LPI

- The LPI must be affiliated
  -✓ A submitting institution inside Qatar or;
  -✓ A collaborative institution outside Qatar. He/She must collaborate with a Co-LPI from an approved submitting institution inside Qatar.

- The LPI must hold a terminal degree and have at least five peer-reviewed publications.

- The LPI from a research end-user entity may not hold a terminal degree, however he/she must have a track record in managing technology development projects and/or research projects, and a minimum of five peer reviewed publications, technical reports or authored patent applications/patents.

- MME staff are not eligible to participate as LPIs in this call.
Key Investigators (Co-LPI, PI)

Co-LPI

• The Co-LPI must hold an approved terminal degree.

• The Co-LPI from a research end-user entity may not hold a terminal degree, however he/she must have a track record in managing technology development projects and/or research projects, and a minimum of five peer-reviewed publications, technical reports or authored patent applications/patents.

PI

• An eligible PI must hold at least a university post-graduate degree and he/she should have a suitable research relevant experience.

• Principal Investigator (PI) must be affiliated with a submitting institution in Qatar or a collaborating institution inside or outside Qatar

• MME staff are not eligible to participate as Co-LPIs or PIs in the call.
Other Roles

• Other team members include graduate students, under graduate students, consultants, research assistants...etc.
Number of Roles

• The count of individual participation in all FS proposals as KIs for researchers from inside Qatar is unlimited with research effort not exceeding the allowable institutional percentage of effort.

• For LPIs from outside Qatar, the LPI can submit only one application per cycle.

• For researchers from outside Qatar, the count of an individual participation in all FS active projects as a KI must not exceed three roles, with research effort not exceeding the allowable institutional percentage of effort.
Budget Components

1. Personnel
2. Equipment, services & Consumables
3. Travel (10% of the annual direct budget)
4. Miscellaneous (5% of the annual direct budget)
5. Indirect Cost (20% of the annual direct budget)

✓ At least 70% of the proposed total annual budget and funded research effort must be inside Qatar by the research team.
✓ All Capital equipment cost must be allocated and purchased inside Qatar only.
Co-Funding

✓ Co-funding is highly encouraged
✓ The relevance of the co-funders and the level of the co-funding will be evaluated as part of the programmatic review.

➢ Research end-users are eligible to act as co-funders (Private, Public, Others (Non academic/research institutions))

➢ **Two types of co-funding:**
   1- Cash
   2- In kind

➢ **Commitment letter(s) will be required from the co-funder(s)**
How to apply?

Register and apply at https://www.qgrants.org/
The LPI’s institution in Qatar will be considered as the submitting institution.

If the LPI is from outside Qatar, then the LPI’s institution will be considered as a collaborative institution, and the LPI is required to identify a Co-LPI from inside Qatar.

The Co-LPI’s institution in Qatar will be considered as the submitting institution.

For any proposal utilizing MME resources, an MME support letter must be uploaded in this section.
Details available at; https://www.qnrf.org/en-us/Funding/Research-Programs/Thematic-and-Grand-Challenges-Research-Program/QNRF-MME-Joint-Funding
Application Process

Peer Reviewer’s Evaluation Criteria:

✓ Intellectual Merit
✓ Expected Impact
✓ Work plan
✓ Qualifications of team
✓ Budget
✓ Research Compliance
Application Process

Programmatic Review Evaluation Criteria:

- The strength of the alignment with the FS call objectives and the specific research priority area(s)
- Utilization of MME resources
- The quality of the collaboration and co-funding
- The potential impact on Qatar and the broader commercial market and TRL level (if applicable)
- The past performance of the LPI and participating PIs
- Previous QNRF funding in this area of research
- The composition of the local research team
- Budget
Application Process

LPI registration

Proposal Preparation and Submission

RO Vetting

Screening

Peer Review

Programmatic Review and Funding recommendation

Awards Announcement

© Can Stock Photo
Timeline

Proposal Submission (13 weeks)

RO Vetting (14 weeks)

QNRF Proposal Screening (4 weeks)

Proposal Peer Reviewing, Programmatic Evaluation, Score Analysis & Funding Decision (12 weeks)

Minimum 3 Peer Reviewers

Receiving Complementary documents for funded projects (8 weeks)

RO Vetting (8 weeks)

16th July 2020
(Open Proposal Submission & RO Vetting)

13th Oct. 2020
(Close Proposal Submission by LPI)

20th Oct. 2020
(Close Final Submission & RO vetting)

Nov/Dec. 2020
(Ineligible Proposal Notification)

Feb./Mar 2021
(Award Notification)

Apr./May. 2021
(MRFA Signing)

3.5 Months

4 Months

2 Months

Proposal Preparation & RO Vetting

QNRF Internal Processing

Pre-Funding Phase
Available Support to Researchers

Image of Robotic Hand Designed based on Origami, by Soroush Kamrava QU (NPRP7-882-2-326), BRIO 2017/2018
Queries about any program can be communicated via https://support.qnrf.org/conversation/new

To apply for any of the programs please register on www.qgrants.org and follow the steps and instructions in the download center.

Each program and call has its download center with their guidelines for applications (RFP or CFP), and templates http://www.qnrf.org/en-us/Funding/Research-Programs/National-Priorities-Research-Program-NPRP

Search engine for equipment that were obtained through QNRF grants and are available for use, the portal provides details on the accessibility and contact details of the focal point for each equipment. https://rd.qgrants.org/Public/AssetSearch.aspx

Internal search network for awarded researchers and sponsored capacity, to make use of existing local capacity in research and establish collaborating network.

Queries about any program can be communicated via https://support.qnrf.org/conversation/new
Thank you!

• For further information, please visit our website at:

• Information about MME resources are available at;
  http://www.mme.gov.qa/cui/view.dox?id=1588&contentID=7540&siteID=2

• For inquiries about utilization of MME resources,
  KIbrahim@mme.gov.qa arfcsecretary@mme.gov.qa

• For any inquiry, please use QNRF’s Support link on the website
  (http://support.qnrf.org/index.php?/Tickets/Submit).