



Expression of Interest



Establishment of National Center for Human Nutrition

August 2018

**Higher Education Commission
H-9 Islamabad**

Telephone: + 92-51-9040 1200 Fax: +92- 51- 9040 1202
Email: mmazhar@hec.gov.pk URL: <http://www.hec.gov.pk>



CONTENTS

Introduction	3
TOR OBJECTIVES	3
SCOPE OF CONSULTANCY SERVICES	3
PROPOSED DOCUMENT FORMAT	5
DELIVERABLES	6
MODE OF PAYMENT	7
SUBMISSION, RECEIPT AND OPENING OF PROPOSALS	7
PROPOSAL EVALUATION	7
DISCLAIMER	8
CONFIDENTIALITY	8
TIME PERIOD FOR ASSIGNMENT	8
TERMS & CONDITIONS	8
MAILING ADDRESS/CONTACT INFORMATION	9
ANNEXES	10-20

1- INTRODUCTION



The Higher Education Commission (HEC) has been set up to facilitate the higher education institutions to serve as an engine of growth for the socio-economic development of Pakistan. HEC plays a central role in the development of the universities of Pakistan to become world-class centers of education, research and development.

Earlier this year, HEC has established 4 National Centers for Artificial Intelligence (NCAI), Robotics and Automation (NCRA), Big Data and Cloud Computing (NCBC), and Cyber Security (NCCS). These Centers have been established as a Network of Labs across the country with a Central HQ responsible for coordinating a national response and liaising with HEC and the Planning Commission. A National Steering Committee (NSC) and a Scientific and Industrial Advisory Board (SIAB) has been set up for each of these National Centers for effective functioning and oversight.

In addition, two additional centers were established in Applied Mathematics (CMS at PIEAS) and National Center for Livestock Breeding, Genetics, and Genomics (at Arid Agriculture University).

Following the pattern of the above NCs, HEC intends to establish top-tier science and technology research centers focused on the following areas:

- i) Nano Science and Technology
- ii) GIS and Space Applications
- iii) Human Nutrition

These Centers will be established in HEC recognized universities/degree awarding institutions (both public and private).

2- CONCEPT OF NATIONAL CENTERS

These National Centers are designed to create national capacity in key emerging areas of science and technology that have received a lot of attention and focus in the recent years and where a bit of investment and focus may create a competitive advantage for Pakistan.

Like the recently approved National Centers, each of these new Centers shall comprise of a series of "Affiliated Labs" at a number of universities across the country selected on the basis of;

- (i) Demonstrated capability and track record of accomplishments,
- (ii) Problem-orientation that is either nationally relevant or globally cutting-edge, and
- (iii) Partnerships with leading National Institutions and Private Sector players to ensure sustainability (through generation of non-PSDP revenue) in 3-5 years.

Although HEC is open to ideas about how the specific nature of these scientific disciplines and technologies (and their set up conditions) may require a slightly different approach.

Research Groups (existing Labs, or Universities) interested to establish affiliated labs under one of these National Center are required to submit their expression of interest (EOI) with the following ideas in mind:



a) Think of a 'Big Problem' (or broad area of scientific research) that research group would like to focus on. This should be something hard and cutting-edge enough so they can get quality publications but also be meaningful and contextually relevant. The “big” problem must be challenging but also realistic and do-able so that they can make a major dent in a 3-5 year timeframe. A Scientific and Industrial Advisory Board will evaluate the problem areas proposed and can challenge the Lab if the problem is not tough enough. The trick is to find a balance. Each Lab shall be headed by a Principal Investigator and it will focus on the big problem or scientific area (for example, Artificial Intelligence in Medical Imaging, or Motion Planning)

b) Within your broad area, think about subsidiary Problems or Application Domains that could be addressed while answering their primary big problem. They should also think of practical solutions that could be built, or partners/clients that could be served through these practical problems. Identify a few subsidiary problems and potential partners and clients for each. Each Lab may have 2-3 application domains (for example, cancer detection in CT Scans, or Factory Automation, or Autonomous Vehicles, etc.) and each will be headed by a co-P.I. for that application domain. Preference would be given to those proposals which will identify potential industrial partners or a set of realistic application domains with real-world applications to come out of the Labs.

c) Identify Equipment and Personnel required to solve the problem(s) along with a research plan for how to do it. HEC may fund the basic Lab (equipment + manpower for the big problem area for a period of 3 years) within the PC-I allocation. A dedicated Research Fund may be used separately to fund smaller projects or collaborations using an open call process out every 6-12 months. The Labs must focus on establishing the underlying science or proof of principle (and perhaps build preliminary prototypes) for their respective application areas but leave the ultimate product development to be funded by a real client or industrial partner.

Preference shall be given to those proposals where the research groups have access to data and partners to ensure that what they propose is contextualized and locally relevant or with innovative plans to quickly generate locally relevant data/partnerships.

Preference shall be given to labs and research groups suggesting meaningful research and dissemination partnerships with industry, non-profits, or government entities that creates match funding or enable them to quickly translate research results into societal impact. Universities may also propose to initiate academic programs in the relevant disciplines as part of proposal. However, these requests will be evaluated and approved separately by HEC.

Both **public sector universities and research-active private sector universities** with a track record of research in relevant areas, a pool of qualified faculty, and an innovative nationally relevant idea are encouraged to apply. Public Sector Labs and organisations cannot directly apply but are strongly encouraged to become part of research consortia.

The proposals shall not fund any physical infrastructure (i.e. buildings, etc.) as these shall be the responsibility of the Universities.



Each Lab shall be carefully monitored by a National Steering Committee and will demonstrate that it has delivered a pre-agreed set of SMART KPIs, Papers, Research and Industrial Revenue, Partnerships, Startups, etc. over a 3-year period.

Universities may also commit additional resources to make their proposal attractive. They will have to provide free access to facilities and existing equipment as well as free up faculty time (and Masters and PhD studentships) to support and carry out research.

Should the University seek to host the headquarters of a National Center, it must demonstrate capability and should provide additional details for why it would be the best choice and what it offers in return. The University with the best overall offering as well as capability and organizational arrangements shall be designated as a Lead Institution for the National Center.

3- AREAS OF FOCUS FOR NATIONAL CENTER FOR HUMAN NUTRITION (NCHN)

Malnutrition is both a cause and consequence of various factors which negatively affects all aspects of an individual's life, cognitive growth, nourishment & good health and limits societies' intellectual performance, economic and social development. Prevalence of malnutrition remained high in Pakistan over the decades with wider urban – rural and regional disparities. Almost 15 % children under five years of age are wasted, 31% are underweight and 44 % stunted having the third highest percentage of stunted children in the world (9.6 million children)¹.

Government of Pakistan signaled their commitment to scaling up nutrition; Ministry of Planning Development and Reform (MPDR) is spearheading the Policy Planning, Coordination, and Monitoring & Evaluation in the country. After joining Scaling Up Nutrition (SUN) Movement in 2013 there has been significant progress towards addressing malnutrition at the policy and implementation level. Nutrition objectives have been included in Pakistan's Vision 2025, 11th Five Year Plan (2013–2018). Multi-sectoral nutrition strategies have been developed at national and provincial/areas level and PC-1s have been developed and are being implemented.

SUN is a unique Movement founded on the principle that all people have a right to food and good nutrition. It unites people—from Governments, the United Nations, Donors, Civil Society, Businesses and Researchers—in a collective effort to improve nutrition. Government has established SUN Movement Secretariat in the Nutrition Section, MPDR which is the coordinating body for all SUN networks. The SUN Networks: Civil Society Alliance, Donors, UN, Business and Academia & Research have been established and are operating effectively with the support of development partners.

Scaling up Nutrition Academia & Research (SUNAR Pak) is Network of 50 academic and research institutions which aims to promote nutrition education and research by organizing academicians and researchers on single platform. In addition to capacity building of its members, SUNAR, Pak identified national research priorities and conducted various researches.

¹ Progress report 2013-2015, stop stunting



The research on nutrition is also being conducted by the various universities/research institutions across the country however they are disaggregated and dissipated efforts which do not address the real issues and are not used at appropriate level. Keeping in view the burden of malnutrition and importance of nutritional knowledge, there is need of a National Center of Human Nutrition (NCHN) in order to conduct high quality research and advance level trainings on nutrition. It will provide leadership for having best practices, research, awareness and training support in nutritional problems. Further NCHN will help to achieve the Sustainable Development Goals (SDGs) 2030.

Aim:

Higher Education Commission is working with Ministry of Planning, Development, and Reform along with other partners to establish a National Center for Human Nutrition (NCHN) which aims to conduct research, teach and train tomorrow's nutrition leaders, and advocate evidence-based approaches to improve nutrition throughout life.

Objectives:

- 1) To conduct high quality multi-sectoral research on nutrition, nutritious commodities and products
- 2) To foster Public Private Partnership for production and availability of cost effective Nutritious Food Products
- 3) To provide counseling and therapeutic services for treatment and management of nutrition related illnesses
- 4) To promote of good dietary behavior and practices through awareness on Nutrition and Safe Foods
- 5) To ensure access to nutritious food through income generations and livelihood
- 6) To build Capacity through advance level trainings on nutrition, research methodologies and innovation transfer mechanisms
- 7) To monitor and evaluate planning and implementation of multi-sectoral nutrition programs

Requirements for Applicants:

1. High Quality Multi-Sectoral Research



-
- National Research institutions having expertise on conducting research under different thematic areas of nutrition including Medicine, Public Health Nutrition, Food Sciences , nutrition sensitive agriculture, Livestock, Fisheries and Poultry.
 - Application will be invited evaluated by HEC
 - Application will be assessed through HEC criteria which include importance of topic, relevance, feasibility, methodology and contribution towards product/technology development, policy formulation, planning and implementation

2. Production and availability of cost effective Nutritious Food Products

- Food Departments of National Institutions having Food laboratories and connection with Food Industry
- Prior experiences of developing food products including Ready to Use Therapeutic Foods
- Experience of products packaging and marketing at some scale
- Laboratories to assess nutritional value and Quality
- Accreditation status of Laboratories will be preferred
- Applicant should propose list of products with nutritional information and estimated packaging and marketing costs
- Capacity building experience in relevant fields

3. Counseling and therapeutic services for treatment of nutrition related illnesses

- Teaching hospital with facility of Out Patient Department and In Patient Departments providing Mother and Child Nutrition & Health treatment with focus on 1000 days plus approach
- Expertise in Nutrition Screening and management of Severe Acute Malnutrition & Moderate Acute Malnutrition with stabilization center
- Availability of Nutrition Experts
- Outreach for nutrition counseling at community level and through mass media
- Applicants should propose approach and key activities for treatment, prevention of nutrition related illnesses and NCDs among women, children and adult population
- Capacity building experience in relevant fields

4. Awareness Raising and Advocacy

- Prior experiences of development and running of awareness campaigns on health and nutrition related issues



- Expertise in Information Education & Communication (IEC) and Behavioral Change Communication material development
- National and regional out reach for dissemination
- Preferences will be given to electronic (TV and Radio) media with nation wide
- Applicants should propose short documentaries, TV & Radio Programs, Public Service announcements (PSAs) and airing schedule with estimated costs
- Capacity building experience in relevant fields

5. Access to Nutritious Food through Income Generations and Livelihood

- National level Institutions/CSOs and development organization having prior experience of income generation, entrepreneurship and livelihood programs
- Understanding and experience on livelihood and Food subsistence
- Registered with relevant government bodies and EAD
- Applicants should propose approach, mention entrepreneurship experiences with scale and Impact, # of beneficiaries, proposed area and estimated costs.
- Capacity building experience in relevant fields

6. Monitoring and Evaluation

- National Institutions/Private Companies
- Having extensive experience of Result Based Planning, Monitoring and Evaluations planning and implementation of Multi-Sectoral nutrition programs
- Availability of Staff team knowledge and understanding of nutrition and food security issues
- Capacity building experience in relevant fields

4- PROPOSAL FORMAT

The proposal may be submitted on the attached format. Each research group must submit a separate EOI. Institutions interested in more than one National Center may submit separate proposal for each. HEC will consider only those proposals complete in all respect and supported by the documentary evidence. Incomplete applications will be rejected at the initial scrutiny.

5- LAST DATE FOR SUBMISSION OF PROPOSALS

The proposals complete in all respects may be submitted by Sept 15th 2018 before 14:00 hours.



6- MAILING ADDRESS/CONTACT INFORMATION

Following address will be used for all correspondence:

Dr. M. Mazhar Saeed

Director General (P&D)

Higher Education Commission (HEC), H-9, Islamabad

Telephone: +92-51-9040 1200, Fax: +92-51-9040 1202

Email: mmazhar@hec.gov.pk

Establishment of Affiliated Lab for the National Center _____



Full name of the Focal Person:		Position / Title:	
Name of the Institution:			
Name of the Department (s)			
Contact Information:		Office phone:	
E-mail:		Fax:	
Mobile phone:		Web address:	
Requested Budget: (m. Rs.)	Tentative Completion Time (months):		Date of submission:



Concept Note of the Affiliated Lab

1. Abstract:

Please provide summaries of the overall goal (“Big Problem” or Scientific Area) of the proposed Lab. This information will provide first overview of your proposal **(One page maximum)**

2. Scientific goals

Please outline the research areas of the Lab and describe the scientific goals to be achieved by the proposed Lab. Specify the value of establishing this kind of Lab to the country. Note that these explanations are the main focus of the proposal. **(One page maximum)**.

3. Application Domains, Specific Goals for each, and Potential National and International Partners

Describe plans for transforming the research on the “big problem” (or scientific area) to 2-3 potential application domains (or sub-problems) and list national, international and private partners to cooperate with the Lab. **(Two pages maximum)**.

4. Promotion of Young Researchers

Please describe strategy of the Lab for promoting early-stage researchers and graduate students. Universities may offer Scholarships to MS/PhD students from their own funds (or waive tuition fee) to attract better manpower into research. **(One page maximum)**

5. Implementation of Lab’s Objectives and Sustainability

Please describe measures which will be undertaken by the Lab to achieve its objectives and your plan for ensuring long-term sustainability **(One page maximum)**

6. Organization, Management and Infrastructure

Please describe the internal (inter-disciplinary) cooperation with different departments and institutions within university and network structures with similar institutions and industry. Also describe the administrative structure of the proposed Lab with in University. If the Lab is going to be cross-disciplinary, the sponsors must demonstrate the synergy and structural added value the cooperation will generate and expected benefit of this strategic cooperation. **(One page maximum)**



A: Basic Information:			
Full Name:		Mobile:	Email:
Last University Degree	University, Country of Graduation	Graduation Date	
Current Position/Title:	Organization:		
Major Field of Research:	Specialization with Major Field:		
B: Scientific Achievements			
Total no. of international publications	Total Citations	Book/Chapter (if any)	
3 most recent international publications in the relevant field: <i>Authors (underline your name), year, title, Journal, vol. and pages</i>			Impact Factor (if any)
Funded Projects Won/Delivered:			Sponsor & Amount
A Statement of Current Research Focus as well as Scientific achievements (such as patents granted, scientific awards and former research grants relevant to the field.			

10. Research Plan (Five Pages Max)



Layout a brief research plan for how you propose so solve the “Big Problem” and each of the potential application domains. The proposed activities (and milestones) as well as measurable outputs and outcomes should be provided. Please also indicate the tentative budget for each application domain area.

11. Optional: Suggested Modifications to ‘Affiliated Lab’ Format (Two Pages Max):

Any modifications to the basic HQ-Affiliated Labs Model that you may wish to propose keeping in view the specific nature, set-up requirements, and dissemination needs of the National Center. A clear and convincing case, based on prior knowledge or experience, needs to be made for the consideration of HEC.

12. Optional: Additional Information about University (Two Pages Max):



Should the University seek to become the Headquarter of the National Center, it should provide additional details for why it would be the best choice and what it offers in return. For example, this section may contain information on what additional labs, equipment, human resources, partnerships it brings to the table.

13. Statement of Host Institution

Host institution must show its commitment to provide facilities, cost-sharing for PIs/Co-PIs, MS/PhD Students, administrative support, infrastructure and accessibility to all central core facilities available at the host institution. The host institution must provide information on the financial support to the Lab to implement its unique role as a leading national Lab in the country and its uniqueness within the national context. The host institution must also commit to make the central core research facilities of this Lab accessible to all Pakistani researchers from research institutions and universities free of cost or with minimal costs.

**Signature of the Focal Person
Or Principal Investigator**

Signature of Vice Chancellor

Dated: