USPCAS-AFS Competitive Grants Program

Guidelines:

1) Purpose

The USPCAS-AFS competitive grants program is a demand driven program intended to support applied research projects that will build capacity in research in Pakistani agricultural universities. Projects must demonstrate how the results will improve Pakistan’s agriculture sector and contribute to the country’s food security and to poverty alleviation. Submitted projects must focus on problems within the following cross-cutting priority areas:

1. Agricultural Policy (main theme)
   - Agricultural Commodities Analysis
   - Output and Input Marketing
   - Strategy for Financing of Agricultural Research
   - Producer Cooperatives and Cooperate Agriculture Policy (availing scale economies and bridging yield gaps)
   - Taxes / Subsidies in Agriculture and Policy Reforms

2. Biotechnology (main theme)
   - Vaccine development against animal diseases
   - Functional Genomics (Bioinformatics, Proteomics, metabolomics)
   - Genetic improvement of bioenergy crops
   - Transgenic approaches for crop improvement
     - Development of herbicide resistant transgenic crops
     - Transgenic crops with improved drought, heat and salinity tolerance
     - GM crops with disease and insect resistance
   - Risk assessment of GM crops
   - Fast forward breeding for crop improvement
   - A combination of different techniques to produce improved crops in short time:
Doubled haploidy, Molecular breeding, transgenic approaches

- Climate smart genetic resource characterization and conservation

3. **Climate Change (main theme)**

- Redefining the agro-ecological zones of Pakistan on the basis land use land cover (LULC), crops, soil topography and meteorological indices using latest tools & techniques
- Establishment of Early Warning System/Ag Weather Network to provide the long term climatic forecasting (weather extreme) for sustained agriculture sector productivity.
- Spatial and temporal field experimentation for climate change impact assessment of agriculture sector (crops, livestock, water, soil, forestry, wildlife, fisheries etc.) productivity.
- To develop the mitigation and site specific adaptation strategies for crop, livestock, agroforestry, wildlife and fisheries for sustainable productivity in the era of CC
- Impact of CC on Changing water scenarios glaciology, Glacier Lack Outburst Floods (GLOF) and water shed management
- Selection of drought/heat/ frost/ submergence/salt resilient crops on the basis of phenotypic, genetic architecture assessment
- Selection of drought/heat/ frost resilient livestock breeds on the basis of phenotypic, genetic assessment
- Improving forest management, biodiversity conservation and soil carbon sequestration to cope with CC
- Policy initiative: to develop infrastructure for CC
  - Nationally Appropriate Mitigation Action (NAMA)
  - Clean Development Mechanism (CDM’s)
  - Intended Nationally Determined Contribution (INDC’s)
  - Low Carbon Development Strategy (LCDS)

4. **Precision Agriculture (main theme)**

- Spatial database development on soil properties at both micro (site specific) and macro (agro-ecological zones) level with special focus on rain fed areas
- Proximal/UAVs/ satellite remote sensing for site-specific farming (mapping, monitoring etc.)
- Research, development and standardization of precision agricultural systems for local needs
- Reverse engineering of agricultural equipment/machinery to develop indigenized machinery
- Sensors/Software re-modeling for precision farming technologies
- Precision livestock and Poultry farming (RFIDs)
- Precision Irrigation, Horticulture and Agronomy
- Digital farm maps
5. Outreach (main theme)

- Cooperative extension (UAF Model)
  - Establishment of UAF Community Centers at selected villages
  - Youth and children clubs (4-H, Future Farmers)
  - Baseline and Need Assessment Survey
  - Engagement of UAF Faculty (teaching departments/Inst.)
  - Follow-up survey (formative evaluation)
  - Summative evaluation

- ICT as a Tool for Outreach
- Youth and women in agriculture (Gender mainstreaming)
- Alternate technology transfer techniques and their impact assessment

1. Proposals will be accepted from the following Pakistani Agriculture Universities

1. University of Agriculture, Faisalabad
2. National University of Science and Technology (NUST), Islamabad
3. Peshawar University of Engineering and Technology, Peshawar
4. Mehran University of Engineering and Technology, Jamshoro, Sindh
5. Mian Nawaz Sharif University of Agriculture, Multan
6. Sindh Agriculture University, Tandojam
7. Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi
8. University of Veterinary and Animal Sciences, Lahore
9. KPK Agricultural University, Peshawar
10. Shaheed Benazir Bhutto University of Veterinary and Animal Sciences at Sakrand
11. Lasbela University of Agriculture, Water and Marine Science (LUAWMS), Uthal, Lasbela, District, Balochistan, Pakistan
12. Department of Agriculture and Agribusiness Management, University of Karachi, Karachi
13. Institute of Agricultural Sciences, University of the Punjab, Lahore
14. University College of Agriculture, University of Sargodha
15. Faculty of Agriculture, Gomal University, Dera Ismaeel Khan, Khyber Pakhtoonkhwa
16. Faculty of Agriculture Sciences and Technology, Bahauddin Zakariya University, Multan
17. Baluchistan Agriculture College, Quetta
18. University College of Agriculture and Environmental sciences, Islamia University, Bahawalpur
19. Ghazi University of Agriculture, DGK
20. University College of Agriculture, University of Poonch, Rawalakot, Azad Kashmir
22. Department of Agriculture Sciences, University of Haripur, Haripur, KPK.

4) Proposals will be accepted up to July 15, 2015. Proposals will be reviewed and scored by a committee designated by the Steering Committee. Approximately 50% of submitted proposal will be selected for technical review by UC Davis. The final recommendations on awards will be made by the Council for Research and Policy on or about September 1, 2015.

5) Proposals must be submitted on the given Proposal Format shown below.

6) Proposals are limited for budgets up to and not exceeding Rs 5.0 million.

7) The primary goal of these projects as mandated by the sponsor is for demand driven applied research. Thus, proposals must demonstrate a demand driven/bottom-up need in the objectives for the research.

8) Project Completion Period
The project and results must be completed within 36 months, with a final report due by 30 days of completion. Short term project 10-18 months are given priority. The proposal must detail by month what accomplishments will be completed.

9) Deliverables of the project must be clearly detailed – both short term and long term. These deliverables are required to be demonstrated in the final report – were they successful or not; with a description of why or why not they were successful. Extension materials such as fact sheets, bulletins, training materials, etc. should be one of the outcomes.

10) There must be a reasonable, projected measurable outcome as a result of the project as well as M&E data (e.g. pre and post-test surveys, evaluations, survey data, etc.) to show who was served, how many people were served, what improvements or increased knowledge was gained as a result of the project. An M&E plan, surveys or pre/post-tests must be included with the proposal.

11) Funding will be made available as expenses are required. Typically on a quarterly basis.
Quotes from at least 3 different sources must be obtained for all expenses over $100.
Proposals must be aligned with the needs and priority assessments (see above).
Allowable costs include, but are not limited to:
  • Seminars, workshops, conferences and other events;
  • Training courses, including the expenses related to external/internal trainers, course materials, site costs, etc.;
  • Publications and publication related costs such as layout, printing, distribution, etc.
  • Demonstration plots or Farmer Field School sites, demonstration materials (seed, fertilizer, etc. that are used directly for the demo plot only)
  • Salaries to staff.
  • Lodging and transport costs to project staff according to the institution rules.
  • Honoraria for Principal Investigator (up to one month salary).
  • Equipment costs (subject to approval)
  • TA/DA to project staff
  • Telephone and trunk calls, Email & internet
  • Stationary
  • Computer and office equipment
  • Furniture & fixture

12) Budget:
Budgets must detail costs of materials, printing costs, and are limited to categories as identified
above. Please be sure to calculate the total cost. Not to exceed Rs 5.0 million ($50,000).

13) On the cover page of the proposal, indicate who the Primary Contact person and the collaborating department(s)/private sector is for the project with email and phone.

14) Not all proposals will be accepted; they must be clearly written and must strictly follow the guidelines listed in this guideline document. Final approval will be on or around September 1, 2015.
Title of Project:

Date Submitted:

Location(s) of Project (List all partners participating.):

Name of Principal Investigator;
Designation
Institutional affiliation
Address
Telephone
Residence
Mobile
Email address

Name of Co-Principal Investigator
Designation
Institutional affiliation
Address
Telephone
Residence
Mobile
Email address

Name of collaborating Scientist
Designation
Institutional affiliation
Address
Telephone
Residence
Mobile
Email address

Names and contact information of other project participants

Text of the Proposal:
Relevance of research problem: (Describe the problem and clearly show how it is demand driven.):

Describe your project plans (3-4 page limit):
  (Example of content subheadings:
   1. Statement of the problem.
   2. Long and short term objectives of the project.
   3. Literature Review; Most relevant, clearly identify the gaps.
   4. Methodology
   5. Expected outcomes
   6. Method of evaluation

Timeline. Indicate a schedule of activities. Grants may be made for the duration of the project.

Budget – provide only five (5) categories for expenditures and total not to exceed $50,000 (PKR 5mn).
## BUDGET DETAILS

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<th>YEAR-III</th>
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Attach Monitoring and Evaluation surveys, and any evaluation process you intend to use.
Contact Name: Saliha Ahmad
Designation: Grants Officer
E-Mail: uspcas-afs.rg@uaf.edu.pk
Contact No: 041-9200758, 9200161-70

SUBMIT only via email to uspcas-afs.rg@uaf.edu.pk (Grants Officer)