

COMPETITIVE AGRICULTURAL
RESEARCH GRANT SCHEME

OPERATIONAL MANUAL

Ghana National Agricultural
Research and Extension System

A Publication of
The Council for Scientific and Industrial Research (CSIR) and
The Ministry of Food and Agriculture (MOFA)

January, 2013

PREFACE

This manual has been designed to assist individual scientists, agricultural research institutions, universities, non-governmental organizations (NGOs) and agricultural business concerns in their applications for research grants under the Competitive Agricultural Research Grant Scheme (CARGS) of Ghana.

With the development of this manual, it is our cherished desire to see increased participation by all stakeholders in the scheme, and also the development and implementation of research projects, which would increase agricultural productivity – a basic requirement for the reduction of poverty in Ghana.

Finally, I wish to thank Dr. A. B. Salifu, (Director-General CSIR), The Late Dr. Joseph Cobbina, Dr. Felix Anno-Nyako, Mr. John Kwesi Ocran, Mr. Timothy Archer-Playe, Mr. Charles Oware-Tweneboah and Mr. Samuel Mahama, all of CSIR Head Office, as well as members of the CARGS Board, MoFA-DAES, EPA and CSIR-CRI for their invaluable contributions which made the publication of this revised manual possible.

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TABLE OF CONTENTS

Preface	i
Table of Contents	ii
List of Appendices	iv
Acronyms	v
Section	
1.0 Introduction	1
2.0 Objectives and Scope	2
3.0 Governance and Mandates	3
3.1 Competitive Agricultural Research Grant Scheme Board (CARGSB)	3
3.2 Research Grant Scheme Administration	4
4.0 Types and Size of Grants	5
5.0 Criteria for Award of Commissioned Research	6
5.1 Eligibility	6
6.0 Call for Concept Notes and Research Proposals (Competitive Research)	7
6.1 Proposal Formulation and Submission	7
7.0 Review of Proposals and Award Process	9
7.1 Initial Screening	9
7.2 Technical Screening	9
7.3 Technical Assessment by Peer Review	9
8.0 Financial Administration and Procedures	11
8.1 Cost coverage	11
8.3 Disbursement/According to Fund Procedures	11
9.0 Reporting	13
9.1 Progress and Final Reports	13
9.2 Sanctions	13
9.3 Force Majeure	13
10.0 Monitoring and Evaluation	15
11.0 Publication and Dissemination	16
12.0 Acknowledgement	16
13.0 Bibliography	16
Appendices	20

LIST OF APPENDICES

Appendix

1	Indicative Call and Concept Notes	17
2a	Format for Preparation of Concept Notes	19
2b	Guidelines for Preparing Research Proposals	20
3a	Guidelines to Independent Assessors	26
3b	Rating by Independent Technical Proposal	26
4	Contract for Award of Grants	28
5	Grant Conditions	29
6	Format for Reporting	31

ACRONYMS

AFFS	Agriculture, Forestry, and Fisheries Sector
ARPS	Agricultural Research Policy Committee
AgSSIP	Agricultural Services Subsector Investment Project
CARGB	Competitive Agricultural Research Grant Board
CCMC	Chemicals Control and Management Centre
CSIR	Council for Scientific and Industrial Research
CV	Curriculum Vitae
MSc	Master of Science
MOFA	Ministry of Food and Agriculture
NARS	National Agricultural Research System
NGO	Non-Governmental Organisation
TOR	Terms of Reference

1. INTRODUCTION

Until 2010, agriculture has been the most dominant sector of the Ghanaian economy since independence. Its contribution by way of employment, personal incomes for farmers and other stakeholders along the value chain, export earnings, food security and social stability cannot be overemphasized. However, various commentators have over the years lamented on a number of challenges confronting the agricultural sector that require urgent attention from all stakeholders if the gains so far made would be improved and sustained.

Among other issues like low investments in agriculture, lack of access to capital, poor infrastructure, weak diffusion and limited impact of improved agricultural technologies, lack of adequate research funding and support for scientists has also been cited as some of the major constraints limiting increased agricultural productivity in Ghana.

In some instances where funding is available, it is mostly untimely and unsustainable. In agricultural research and extension, a short delay in funding often pushes planned activities from one season or year to another, thereby greatly reducing the productivity of the human and capital assets involved. A funding shortfall could jeopardize the completion of a research experiment that had been put in place at great expense.

To address these constraints, the Council for Scientific and Industrial Research (CSIR) and the Ministry of Food and Agriculture (MoFA) in collaboration with donors and other stakeholders have established the Competitive Agricultural Research Grant Scheme (CARGS).

The CARGS provides an effective mechanism to involve key stakeholders, (particularly producers and agribusinesses) in targeted adaptive research and has an inbuilt transparent funding mechanism. Advantages of this funding mechanism include increased research effectiveness by directing resources to relevant awardees on merit; increased efficiency by eliminating duplication of efforts; increased accountability of research resources provided; ensuring closer alignment of agricultural research and development with national research priorities and promoting demand-driven national agricultural research agenda.

The CARGS will facilitate and promote very relevant, demand-driven and cost effective agricultural research and development which in turn could guarantee sustainable funding. If national governments, donors and the private sector are convinced that their priorities are being served through CARGS then they will increase support to the scheme. This operational manual for the CARGS presents relevant information essential to those who wish to submit proposals for CARGS funding. It provides guidance on the preparation of concept notes, detailed proposals as well as technical and financial reports on the project. It also provides Management/CARGS Board guidelines for the governance of the scheme.

2.0 OBJECTIVES AND SCOPE OF CARGS

The Competitive Agricultural Research Grant Scheme (CARGS) is to promote research with substantial benefits to farmers and other end-users either directly or through contributions to clearly identified research activities. The Scheme is also open to pilot activities that develop research results into commercial products or demonstrate the potential of improved technologies. It also seeks to harness the diverse resources within the country to achieve national development objectives such as food security, poverty reduction and economic growth.

The specific objectives of the CARGS are to-

- i. ensure dependable and timely access to funds for strategic, applied and adaptive research
- ii. strengthen the contribution of the NARS by facilitating the participation of researchers in demand-driven research in addressing agricultural problems identified through the RELCs and other strategic problems of national importance.
- iii. promote innovative partnerships between the public and private sectors.
- iv. support the introduction of relevant technologies and innovative ideas into the research system.
- v. accelerate the dissemination and adoption of improved agricultural technologies by providing funding for promising development activities in partnership with the private sector
- vi. promote participation of the private sector and non-governmental organizations in research and its funding
- vii. promote collaboration between local and international research scientists and support cross-border partnerships and technology transfer

The CARGS will support the following types of demand-driven research:
Strategic, Applied, adaptive and commissioned research.

3.0 GOVERNANCE AND MANDATES

3.1 COMPETITIVE AGRICULTURAL RESEARCH GRANT SCHEME (CARGS) BOARD

The CARGS is managed by the Competitive Agricultural Research Grant Scheme (CARGS) Board. Members of the CARGS Board shall be specialists in agricultural research & development and other relevant stakeholders, appointed by the Deputy Director-General in consultation with the Director-General of CSIR.

3.1.1 Composition of the CARGS Board

The CARGS Board shall be an 11-member committee (with the option of co-opting other relevant stakeholders) responsible for the management of the CARGS.

The CARGS Board members are selected as representatives of various stakeholders who have the capability of selecting proposals with best prospects for contributing to agricultural development objectives.

The CARGS Board shall be composed of the following:

- The Deputy Director-General, CSIR (Chair)
- One representative from Faculty of Agriculture from a Public University
- One Representative from Agric-based NGO
- One Representative from MOFA Special Projects
- One Representative from a CSIR Agric-based Institute
- One representative from MoFA-DAES
- One Representative from EPA (CCMC)
- Three (3) Representatives from Farmer-based organizations (including at least one female)
- One Technical Specialist from CSIR (Member/Secretary)

• 3.1.2 Terms of References (TOR) for CARGS Board

- Collate, prioritize and advertise constraints from the RELCs
- Review and select concept notes
- Select proposals for funding after peer review
- Monitor and Evaluate the implementation of research projects
- Oversight responsibility for both Commissioned and Non-competitive projects
- Constitute Technical Sub-committees for any special assignment
- facilitate collaboration between local and international research institutions

3.1.2.1 Meetings

- The Board shall meet at least twice a year

3.2 ADMINISTRATION OF CARGS

The Deputy Director-General (DD-G) of CSIR shall be responsible for the day to day administration and management of the CARGS.

Responsibilities of the DD-G:

- organize meetings of the CARGS Board;
- chairs the CARGS Board

- disseminate information about the CARGS.
- advertize calls for concept notes;
- organize the screening of concept notes and full proposals
- submit proposals for assessment through peer review;
- submit peer reviewers' reports for review and approval by the CARGS Board;
- prepare and sign contracts of approved proposals with grantees;
- disburse funds to grantees;
- receive and review progress and final reports;
- monitor and evaluate projects in consultation with the recipient organizations;
- recommend minor modifications to approved projects but shall refer all major modifications for the consideration of the CARGS Board
- suspend disbursements to grantees when warranted by failure to submit technical and financial reports or in the case of any adverse monitoring findings;
- organize training in the preparation of proposals and other aspects of the project cycles, as needed;
- liaise with stakeholders, and also source for funding from other donors.
- Perform any other function as may be determined by the Board

4.0 TYPES OF GRANTS

The CARGS will support three types of research and development activities.

- Strategic research that is targeted at solving emerging problems of national importance.
- Applied and adaptive research that is exceptionally innovative, responds to pressing needs and/or opportunities. Such projects must bring together new partners, or cut across several disciplines and commodities in such a way that they have not been catered for by the existing priority research programmes despite their merits.
- Commissioned and Non-competitive or Contract Research on a problem/issue of national importance that falls within the purview/mandate of an Organization/Institution that possesses sole capacity and expertise to deal with the problem/issue

4.1 AMOUNT OF GRANTS

The upper limit of grants shall be determined by the Board on case by case basis and shall be indicated in the calls.

5.0 CRITERIA FOR AWARD OF COMMISSIONED RESEARCH

Commissioned research shall be awarded to grantees on the basis of the following:

- a) A problem of national importance identified by the RELCs but for which no proposals were received after calls had been made.
- b) A problem of national importance as determined by the CARGS Board through its M & E Team. Solutions to such problems must respond to some components of Ghana's agricultural development policies
- c) Where a useful innovation/technology that has the potential for increased production and value addition has been developed but has not been fully disseminated and/or adopted by end users.
- d) An outbreak of any disease or pest problem that has devastating impact on agricultural productivity and requires urgent attention.

5.1 ELIGIBILITY

Commissioned projects shall be awarded to grantees/ institutions/organizations on the basis of proven technical competence and capability. The problem/issue must fall within the purview/mandate of that organization/institution.

5.2 REVIEW AND APPROVAL

The CARGS Board shall review all such proposals prior to approval by the relevant authority and the award of contract and release of funds.

6.0 CALL FOR CONCEPT NOTES AND RESEARCH FULL PROPOSALS (CARGS)

The development of full proposals will be preceded by submission of concept notes by applicants. Appendix 1 shows an indicative announcement for the call for concept notes. Pre-screening of concept notes shall be undertaken by a Technical Sub-Committee constituted by the DD-G. The report on the screening exercise will be given to the Board and all Ten (10) Regional RELC Co-ordinators and their assistants for their comments prior to the call for full proposals. Comments from the Co-ordinators shall be submitted to the office of the DD-G within a period of two (2) weeks.

4 weeks shall be allowed for proposal preparation to allow for contact with potential partners, carry out participatory diagnosis with users, conduct review of literature, and liaise with collaborators to develop the full proposal.

6.1 PROPOSAL FORMULATION AND SUBMISSION

In formulating research proposals for submission, prospective applicants should take note of the following:-

6.1.1 Eligibility

The Applicant(s) should be:

- i. Ghanaian resident in Ghana (at least the Principal Investigator);
- ii. technically qualified to undertake the proposed research and development activity. The applicant should have a minimum of MSc. or its equivalent.
- iii. Grantees shall not be principal investigator in more than two (2) on-going research projects managed by the CARGS Board.

6.1.2 Relevance

The proposed research or development activity should be relevant to the development needs of Ghana as indicated by:-

- i. Priority research areas for funding provided by the CARGS
- ii. A CARGS call for proposals on the topic in question;
- iii. An ex ante impact assessment that scores high economic returns to Ghanaian clients.

6.1.3 Collaboration/Partnership

As much as possible, investigators shall form inter-institutional/multi-disciplinary teams to develop proposals, to include other key stakeholders like FBOs, NGOs, Agribusiness, end-users and other private sector groups in the generation, dissemination and adoption of technologies. Gender issues should also be addressed.

6.1.4 Environmental/Social Management Requirements

All proposals shall identify and adequately describe anticipated environmental and social impact of research activities – both positive and adverse, and strategies for their enhancement and/or mitigation in line with existing national procedures.

6.1.5 Dissemination and Adoption Strategies

All proposals shall indicate strategies for dissemination and adoption

6.1.6 Monitoring & Evaluation

All proposals shall indicate how the set objectives would be monitored and evaluated, based on clearly stated milestones and timelines.

6.1.7 Format and Guidelines for the Preparation of Concept Notes and Proposal

Guidelines for preparation of concept notes and research proposals are given in Appendices 2a and 2b.

Proposals should be typed and double-spaced. The proposal should be submitted in both hard and soft copies to the office of the DD-G.

6.1.8 Institutional Endorsement

Submissions must be endorsed by the head of the applicant's institution (e.g. Directors of institutes/ Deans/Directors of Colleges or Faculties of Agriculture/Rectors). The endorsement must indicate that resources (other than those requested from CARGS) are available to support the proposed research and that the proposed activities are in accordance with the institution's policy and priorities. In the case of collaborative agreements or proposals with several sub-projects, several endorsements may be needed.

6.1.9 Compliance with relevant regulations and permits

Applicants are reminded that notwithstanding the award of grants, certain research activities may be subject to other relevant regulations and permits. It is important that these are clearly identified during proposal preparation and measures put in place to ensure compliance.

7. REVIEW OF PROPOSALS AND AWARD PROCESS

7.1 Initial Screening

All research proposals received will be screened by the Technical Sub-committee of the CARGS Board constituted by the DD-G for compliance with the prescribed guidelines/procedures. The purpose of this initial screening is to eliminate from further consideration proposals that:

- were not submitted by the due date;
- deviate significantly from the prescribed format;
- do not include the required supporting documents; or
- request funding far in excess of the maximum limit set by the CARGS Board as placed in the indicative call.

7.2 Technical Screening

Technical screening shall be done by the Technical Sub-committee of the CARGS Board constituted by the DD-G. The purpose of the technical screening is to eliminate from further consideration the proposals that do not meet the technical specifications in terms of relevance, scientific quality and content, overlap with ongoing or past research, or high costs relative to expected benefits. The Technical Sub-committee will classify proposals into appropriate disciplines to facilitate peer reviews.

7.3 Technical Assessment by Peer Review (Independent Assessment)

The DD-G in consultation with the CARGS Board shall select two peer reviewers for each proposal. The peer reviewers shall be specialists in the subject area of the proposal. See Appendix 3a and 3b for guidelines and criteria for assessment.

The identity of the assessors shall be kept confidential by the Board. The outcome of the assessment and any other relevant comment for improvement of the proposal shall be made available to the principal investigator(s).

7.4 Final Selection of Proposals for Awards/Funding

The CARGS Board will select research proposals and make recommendations for approval of grants for their implementation, taking into consideration the following:

- assessment reports or comments from the peer reviewers
- specific priorities mentioned in the call for proposals

The Board shall accept, reject, or request applicants to revise the proposals for re-submission. The Board shall justify and document its decisions, especially those that significantly deviate from the rankings based on the peer reviewers' ratings.

7.5 Award and Grant Conditions

After the CARGS Board's recommendations, the office of the DD-G shall communicate the Board's decisions to the funding agency/donor for approval. When approvals are granted, the DD-G shall initiate contract procedure for proposals selected for funding. Following the signing, a formal agreement is entered into by all parties; namely the CSIR, the principal investigator, and the submitting institution. See Appendix 4 for research contract.

8.0 FINANCIAL ADMINISTRATION AND PROCEDURES

8.1 Cost Coverage

Applicants are advised to develop realistic budgets. Applicants should note that the Scheme covers only direct research costs, and does not support salaries/allowances, and the purchase of capital items.

8.2 Financial Responsibilities and Procedures

Grants awarded under the CARGS shall be managed in accordance with financial management regulations and procedures laid down within the institution hosting the research to the extent that these regulations and procedures conform to CARGS guidelines and procedures as stated in this manual. Where conflict arises between these regulations and procedures then the CARGS guidelines will apply.

8.3 Procedures for Disbursement and Retirement of Funds

The CSIR shall release funds to the principal investigators of selected research proposals through the institution hosting the research project. Financial reports on the research project shall follow the guidelines and format provided in appendix 5. The reports shall be submitted to the CSIR through the head of the host institution. Also;

1. Accepted proposals shall receive an initial advance not exceeding 45% of the approved first year budget on the receipt and acceptance of a six months work plan for the research work.
2. In conjunction with the Accountant of the Institution hosting the research project, the principal investigator shall submit bi-monthly statements of expenditure returns to the DD-G through the Head of Institution
3. Requests for funds supported with workplan and budget shall be submitted to the CSIR a month in advance. All outstanding statements of expenditure must be submitted as a prerequisite for subsequent release for funds. Retirement of funds shall not be deemed to constitute a request for funds. Specific request for funds should therefore be submitted for consideration.
4. Failure to submit satisfactory bi-monthly statements of expenditure may result in the suspension or termination of funding and the refund to the CSIR, funds which in the opinion of the CSIR have not been satisfactorily accounted for. In addition to the above, the CSIR reserves the right to apply further sanctions on the grantee
5. An audit team reserves the right at any time to inspect the financial records of all CARGS funded projects.
6. Unless otherwise agreed in writing by the CSIR, the grant shall be used to cover only the costs included in the budget to implement the activities outlined in the proposal. Any material purchased from the CARGS grant remains the property of the institution where the project is being implemented. The material should be used solely for the activities of the project.
7. At the end of the project, the technology developed becomes the property of the institution, the grantee and the CSIR.
8. In the case of commercially viable technologies, the CSIR and the host institution shall have a joint ownership with the grantee of any equipment/material commercialized.
9. On completion of the project any unspent balance shall be refunded to the CSIR by the host institution.

10. Ten percent (10%) of the total budget of the project shall be given to the host institution as institutional support. This amount is an addition to the project budget.

9.0 TECHNICAL REPORTING

9.1 Progress and Final Reports

The Principal investigator shall submit to the CSIR progress reports every six months from the date of commencement of the project. The Board shall make copies of all reports available to the relevant Regional RELC Co-ordinators and their assistants

Upon completion of the project, a financial statement and three bound hard copies (in colour); and a soft copy of the final report shall be submitted to the CSIR. This report should cover the entire duration of the project and should emphasize results, achievements and likely impact, as well as challenges encountered if any. A list of publications should be appended.

Reports will be reviewed for technical progress and achievements against the milestones, which were indicated in the proposal and therefore form part of the contractual agreement. Financial expenditure will be scrutinized against the budget and projected expenditure plan. Where necessary, the principal investigator/Head of submitting institution may be asked to clarify, or make additions and corrections.

All reports should be prepared according to the format for presentation as shown in Appendix 5. Copies of all progress and final reports should be forwarded to the CSIR through the Head of the applicant's institution.

9.2 Sanctions

Progress report is due at the end of every six-month period. If the progress report is not received within two weeks after the due date, the Head of submitting institution will be notified to suspend disbursement of funds until the report is received. The DD-G will not approve further disbursement of funds until the situation is satisfactorily remedied.

9.3 'Force Majeure'

If performance of the contract by either party is delayed, hindered or prevented, or otherwise frustrated by reason of force majeure (civil commotion, fire, flood, action by any government or any event beyond the reasonable control of the party affected), then the party so affected will promptly notify the other party in writing, specifying the action of the force majeure and the anticipated delay in the performance of contract.

In the case of incapacitation, transfer or resignation, the Head of institution shall appoint another researcher of similar capabilities to take over the project as principal investigator

- i. Upon receipt of such reports, the force majeure shall be verified by the CSIR M & E Technical Team.
- iii. From the date of that notification (i.e. (i) above), the CARGS Board may at its discretion either terminate the contract immediately, or suspend the performance of the contract for a period not exceeding six months.
- iv. In the event of the contract being terminated by reason of force majeure, the principal investigator/submitting institution of the project shall submit an account in writing to the CSIR which shall then inform the CARGS Board. Such an account should take into consideration the amount received, all fees and costs properly incurred or committed by the principal investigator/submitting institution in relation to the contract, which cannot be recovered, and any outstanding advances made.
- v. If payments are within the financial limit, and not subject to dispute, the CSIR will pay all sums due and outstanding under the terms of the contract up to the date of termination.

10.0 MONITORING AND EVALUATION

Routine monitoring of research projects will be done by the CARGS Board based on progress reports submitted by the Principal Investigator of the research projects. The Board will undertake spot-checks to ensure accountability. In addition, substantive monitoring and evaluation visits by scientists/experts knowledgeable in the field of study of the project shall be undertaken periodically.

The objectives of such visits will be to:

1. determine whether the work is progressing according to schedule;
2. determine whether the project is being carried out competently;
3. determine whether the problem is still relevant and draw the attention of researchers to any deviation from planned objectives and expected outputs;
4. determine whether the project expenditure is in accordance with the budget.
5. recommend changes that can be made for those projects that appear not to be progressing satisfactorily
6. learn lessons for the implementation of future projects

Monitoring and Evaluation shall be carried out by a Technical Team constituted by the CARGS Board. This committee shall comprise but not limited to:

- One Eminent Scientist
- One Technical Specialist from the CSIR
- A representative of the CSIR project implementation unit

- A representative of Faculty of Agriculture from a public University
- One RELC Co-ordinator or the Deputy
- M & E Officer from CSIR project implementation unit
- One accounts officer from the CSIR Project Implementation Unit
- MOFA RELC National Co-ordinator

Depending on the type and nature of the research, Monitoring and Evaluation shall be carried out by the Technical Team within a period of 3-6 calendar months after the release of the first tranche of funds. Thereafter, the team shall visit the project at mid-term of the project life cycle in the case of a 24-month project cycle. Where the project life cycle is more than 24 months, the second visit shall be within 6-9 months of the first visit. The Technical Team shall decide if third visits of such long-term projects would be relevant.

All progress and final reports shall be reviewed by experts appointed by the CARGS Board.

11.0 PUBLICATION AND DISSEMINATION

The CARGS encourages grantees to publish their results in reputable scientific journals. Publications in peer-reviewed international journals provide important support for researchers seeking new funding from the CARGS Board. Such publications should be submitted as part of a progress or final report.

12.0 ACKNOWLEDGEMENTS IN THE PUBLICATION

Financial contribution from CARGS should be acknowledged in all publications as follows:-
 “This research was supported by the Competitive Agricultural Research Grant Scheme of Ghana”.

13.0 BIBLIOGRAPHY

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2. Ghana Vision – 2020: Presidential Report to Parliament on Coordinated Programme of Economic and Social Development Policies, 1995.
3. Operational Manual for Competitive Grant Scheme for Agriculture, Agricultural Research, Extension and Training Project. Tbilisi, George, March 1999.
4. The Agricultural Research Fund, Kenya Agricultural Research Institute (KARI), Nairobi, Kenya, 1997.

APPENDIX 1: INDICATIVE CALL FOR CONCEPT NOTES

Competitive Agricultural Research Grant Scheme Award 20...

The Competitive Agricultural Research Grant Scheme (CARGS) administered by the Council for Scientific and Industrial Research (CSIR) invites research and development proposals for consideration for the Competitive Agricultural Research Grant Scheme Award for 20...

The objective of the scheme is to promote research with substantial benefits to farmers and other end-users either directly or through contributions to clearly identified research activities. The scheme is also open to pilot activities that develop research results into commercial products or demonstrate the potential of improved technologies. In 20..., proposals are especially expected to address constraints identified during the Regional Research-Extension Farmer Linkage Committee planning sessions from the following areas:

- Area 1:
- Area 2:
- Area 3:

The research grant scheme gives preference to concerted efforts that seek to develop solutions to priority problems, with clear articulation of who the beneficiaries are, and how the results will be disseminated to them. Applicants are encouraged to form multi-disciplinary/inter-institutional teams to develop proposals in consultation with end-users. Applicants are to indicate clearly gender issues, dissemination strategies, M&E strategies and measures to mitigate adverse social and environmental issues

Applicants are required to submit 2- 3-page concept notes for review and acceptance before developing full proposal for consideration.

Format and guidelines for preparation of concept notes and full proposals can be obtained from the following:

1. The Deputy Director-General, CSIR
2. Deans of the Faculties of Agriculture/Collage of Agriculture
 - i. University of Ghana, Legon
 - ii. Kwame Nkrumah University of Science and Technology
 - iii. University of Cape Coast, Cape Coast
 - iv. University for Development Studies, Tamale
 - v. University of Education Winneba, (College of Agriculture Education), Mampong Campus, Mampong-Ashanti

3. Director, Institute of Agricultural Research, University of Ghana, Legon
4. Directors of CSIR Institutes
 - i. Animal Research Institute, Accra
 - ii. Crops Research Institute, Kumasi
 - iii. Soil Research Institute, Kumasi
 - iv. Savannah Agricultural Research Institute, Nyankpala, Tamale
 - v. Institute of Industrial Research, Accra
 - vi. Food Research Institute, Accra
 - vii. Forestry Research Institute of Ghana, Kumasi
 - viii. Oil Palm Research Institute, Kade
 - ix. Plant Genetic Resources Research Institute, Bunso
 - x. Institute for Scientific and Technological Information, Accra
 - xi. Science and Technology Policy Research Institute, Accra
 - xii. Water Research Institute, Accra
 - xiii. Building and Road Research Institute, Kumasi
5. Regional Directors of MOFA
6. The Director. GAEC/BNARI

All concept notes/proposals should be submitted to:

The Deputy Director-General
Council for Scientific and Industrial Research, CSIR
P. O. Box M 32,
Accra

Tel: 0244566634/0244665332

Location

Council Close
Off Augustino Neto Road
Opposite Chinese Embassy
Airport Residential Area, Accra

APPENDIX 2a: GUIDELINES FOR PREPARATION OF CONCEPT NOTES

Note: the following guidelines are to be used in preparing concept notes.

Title Page

- (i) Project Title (maximum 15 words)
- (ii) Project Team (The team should be broad-based, i.e. multi-disciplinary and inter-institutional).
 - Principal Investigator (provide qualification and address)
 - collaborators (provide qualification and their addresses)
- (iii) Total cost of project (GH¢)
- (iv) Duration of project
- (vi) Date of Submission

Project Description (not more than 3 pages)

- (i) Background
Should provide justification for the researchable constraint or development opportunity that the project is proposed to address, including any success story that could be highlighted
- (ii) Project purpose
The project purpose should address an identified constraint or a development opportunity for increased agricultural productivity
- (iii) Project outputs
This should clearly indicate the expected project results or products appropriate to the project purpose.
- (iv) Work plan
The project should have a clearly defined workplan
 - Activities
The project activities define the action or strategy for accomplishing each output. This section should summarize the studies, experiments etc. that must be implemented to achieve each output of the project.
 - Institutional support (this should include facilities such as laboratory, utilities, vehicles, land etc.)

(v) Beneficiaries

The beneficiaries of the research are those who gain social, economic or environmental advantage from the knowledge (information, technology or methodology) transfer activities. The beneficiaries may be identified in the household, the village community or the national community.

(vi) Budget

Provide budget (indicate key areas and costs)

(vii) Authorizing signature

The Head of the applicant's Institution is the authorizing signatory and should endorse the concept note before submission

(viii) Type of research (Applied, Adaptive or Strategic)

Indicate whether the research falls under any of the following:

- (a) Strategic research - targeting at specific problems of national importance
- (b) Applied research - designed to produce innovative technology
- (c) Adaptive research - designed to adjust the technology to the needs of a particular set of environmental conditions

APPENDIX 2b: GUIDELINES FOR PREPARING FULL RESEARCH PROPOSALS

The following guidelines are to be used in preparing full research proposals:-

A. TITLE PAGE

i. **Title**

- Keep the title of the project short and simple (maximum 15 words)
- The title should clearly reflect the objectives of the proposed project.

ii. **Principal investigator**

Provide name, qualifications (degrees/diplomas) address, telephone number(s) and e-mail address(es)

iii. **Submitting Institution/Organization**

Provide the name and address of the applicant's Institution/organization.

iv. **Investigators**

Provide information on co-investigators indicating institutional affiliation and qualification.

v. **Budget Amount**

Provide total amount only (GH¢)

vi. **Signature of Investigators**

All investigators should append their signatures to the full research proposal before submission

vii. **Authorizing Signature**

The Head of the applicant's Institution/organization (Dean of Faculty/ Director or Head of Institution, etc) is the authorizing signatory and should endorse the proposal before submission.

B. EXECUTIVE SUMMARY (max one page).

The summary should be sufficiently informative and should include the following:

(i) **Background and justification**

This should give a summary of why the proposed project should be undertaken

(ii) **Project description**

This should give a brief description of the project (objectives and methods)

(iii) **Innovative aspects**

Provide information on new ways, if any, of addressing the identified problem(s).

(iv) **Partnership approach**

Partners (local and international) collaborating in the implementation of the project and possible benefits to be derived thereof if any. Collaborators should be multi-disciplinary and inter-institutional.

(v) **Plans for technology transfer/dissemination**

Indicate how technology/research results to be generated will be transferred/disseminated to end users.

(vi) **Anticipated benefits**

Provide information on the benefits to be derived from the implementation of the project.

C. DETAILED PROJECT PROPOSAL

a) **Background and Justification (maximum 2 pages)**

Provide literature review of key findings relevant to the proposed study, explaining how it builds on previous work in the country.

Also provide brief information on the following:

- * Social, cultural and economic background of the target communities
- * Description of participatory methodologies used in writing the proposal
- * Farming systems of the area (include gender roles)

The justification of the project should include the following:

- * The scope and nature of the problem that is to be researched into.
- * The importance of the problem in relation to the socio-economic development of the community(ies)
- * Expected benefits from the project/technology.

b) **Objectives**

- * State the purpose (the desired impact of the project such as increasing production) and specific (short term) objectives of the proposed project. The specific objectives should respond to the identified problems and should be directly related to the activities proposed.

c) **Methodology**

The methodology should include the following:

- * Description of activities to be carried out to meet the stated objectives
- * Treatments, data gathering techniques and materials to be used
- * If a survey is part of the project, give details of procedures and questionnaires to be used
- * Indication of how the set objectives would be monitored and evaluated
- * Detailed indication of how the technology/research result to be generated would be transferred/disseminated

d) **Outputs** : Indicate in detail the expected outputs

e) **Beneficiaries**: Information on the anticipated benefits to be derived from implementation of the project

- f) Environmental/Social Impacts: Indicate anticipated environmental and social impact of research activities – both positive and adverse, and strategies for their enhancement and/or mitigation.
- g) Workplan and Budget
 - * Prepare a schedule/Gantt Chart (use a table) showing the phasing of activities, scientists responsible, and budgets for each activity
 - * Repeat the procedure if you have more than one objective
 - * Use table to provide a summary of the various costs for the project
- h) Scientists should provide a log frame
- i) Partners' contributions: Indicate the expected roles of the partners
- j) References cited: Provide a list of references cited using acceptable format
- k) Curriculum Vitae of investigators
Provide abridged curriculum vitae of all investigators (maximum two pages per person)

V. **Detailed Budget**

The budget should correspond to the activities outlined in the workplan. The following should serve as a guide:

i. **Wages/Allowances**

These should cover only costs for casual labour. CARGS funds shall not be used to pay salaries of investigators and support staff.

ii. **Travel**

Travel costs should cover only costs for the implementation of the project (e.g. for sample collection, field visits, etc).

iii. **Expendable supplies**

Categories of expendable supplies (fertilizers, feed, drugs, reagents, glassware, solvents, etc.) should be listed in the workplan and a cost estimate for each category should be given.

iv. **Cost of literature**

List categories of literature (books, journals, reprints, Abstracts, reviews, etc.) and give a cost estimate for each category if necessary.

v. **Printing/Publication cost**

Printing/publication costs include costs of preparing and printing project reports and costs of publication in scientific journals of papers arising from the project result. Costs should be specified in the workplan and budget

vii. **Seminars/Workshops**

Seminars, workshops and conferences (both local and international) to be attended should be relevant to the project and explained in the research plan. Specific costs of these items should be included in the workplan.

vi. **Technology dissemination Strategies/Capacity building**

Training workshop, open days, farmers' fora etc. should clearly be explained and budgeted for

viii. **Institutional Support**

Ten percent (10%) of total cost of budget shall be provided to the Applicant's institution as institutional support.

vii. **Repairs and maintenance**

Estimated repairs and maintenance costs of vehicles, equipment, fixtures, fittings and tools etc. used to carry out the work should be budgeted for. CARGS shall however not support the procurement of such goods.

APPENDIX 3a: GUIDELINES TO INDEPENDENT ASSESSORS

1. The assessor is expected to rate the proposals based on the criteria explained in the attached table (Appendix 3b) and record his/her ratings and comments in the approved form (Appendix 3c).
2. If an assessor receives any proposal that conflicts with his/her interest or the evaluation of which will result in a conflict of interest he/she should inform the CSIR and return the proposal.
3. If an assessor cannot be available to perform the task, he/she should inform the CSIR and return the documents for another assessor to be appointed.
4. Assessment fees will be paid to assessors who submit their reports by due date.

CRITERIA		
	Max Score	Actual score
1. Presentation and Project Summary		
Clarity of title of Project	1	
Presentation of Summary	3	
Sub-total	4	
2. Background and Justification		
Review of Relevant Literature	5	
Description of Location and beneficiaries	2	
Clarity of statement of problem	5	
Sub-total	12	
3. Objectives		
Clarity of Objectives	2	
Relevance of Objectives	5	
Measurability of Objectives	5	
Achievability of Objectives within project time frame	5	
Specification of Objectives to target groups	3	
Sub-total	20	
4. Methodology		
Relation of Activities to Objectives	6	
Relevance of Treatments	6	
Indication of data collection techniques	6	
Specification of Analysis to be carried out	5	

Description of materials to be used	3	
Measures to mitigate adverse social/environmental issues	5	
Strategy for Dissemination	5	
Strategy for M & E	5	
Sub-total	41	
5. Personnel		
Experience of Principal Investigator	2	
Balance and Relevance of Team	3	
Sub-total	5	
6. Workplan		
Order of Activities	3	
Presentation of Workplan	7	
Sub-total	10	
7. Budget		
Linkage of Workplan to budget	4	
Reality of Budget estimates in relation to Activities	4	
Sub-total	8	
Grand-total	100	

Pass Mark - 70%

Name of External Assessor.....

Signature.....

Date.....

APPENDIX 4: CONTRACT FOR AWARD OF GRANTS

CARGS ID No.....

1. The Competitive Agricultural Research Grant Scheme (CARGS) administered by the Council for Scientific and Industrial Research (CSIR) has approved a Grant in the Amount of

----- to -----

(hereinafter called the grantee) to enable him/her to Undertake the

Research project entitled -----

2. The Grant is subject to sufficient funds being made available to CARGS by Government of Ghana and during the full term of the Project.

3. The Grant has been awarded to support the project described in the attached proposal, dated _____ and signed by _____ as the principal investigator. The proposal and associated budget are part of this contract. Unless otherwise agreed in writing by the CSIR, the grant shall be used to cover only the costs included in the budget to implement the activities outlined in the proposal.

4. DISBURSEMENTS

- a. Initial payment of not more than 45% of the amount budgeted for the first year based on the approved workplan shall be made upon receipt by CSIR of a copy of this contract signed by the head of the applicant's institution (the Dean/Director) and witnessed by, the Principal investigator
- b. Further payments shall be made upon retirement of funds expended and request for further release has been made

- c. The final payment of 10% of the budget for the final year, if warranted by expenditures, shall be made by the CSIR upon the acceptance of the final report.

5. GRANT CONDITIONS

- a. The principal investigator/submitting institution will undertake to conduct the project and administer the contract in an efficient manner as indicated in the proposal.
- b. Unless otherwise specified in the proposal or agreed in writing by the CSIR, the grantee will commence the implementation of the project within one month of the award of the research grant.
- c. The grantee agrees that the payment of any funds under this grant is subject to the grantee's compliance with the conditions set out in this contract.
- d. The grantee shall submit progress reports to the CSIR every six months. The first six-month period starts at the commencement of the project. Financial reporting shall be part of the progress reporting and shall follow the format provided in the Appendices 5 and 6 of the CARGS Manual. Upon completion of the project, the grantee shall present a Final report that covers the life of the project, objectives, procedures and methodologies, findings and conclusions arrived, along with the final financial report.
- e. Disbursements shall be contingent upon receipt of acceptable and timely progress reports.
- f. The CARGS Board shall visit the recipients as and when necessary to monitor progress of the project.
- g. If monitoring indicates unsatisfactory performance or significant unauthorized deviation from the accepted proposal, the Board shall terminate the contract. The grantee accepts that the Board has the right to do so and agrees to reimburse unspent funds spent on activities that were not in accordance with this contract.
- h. Any material or equipment purchased from the CARGS grant is the property of the project, and should be used largely for project activities. However, after the completion of the project, it reverts to the applicant's institution.
- i. All unspent funds will be refunded to the CARGS Board on the completion of the project.

- J. In the case of commercially viable technologies, the CARGS Board and the host institution shall have a joint ownership with the grantee of any equipment/material commercialized.
- 1. In the case of incapacitation, transfer or resignation of the principal investigator, the Head of the applicant's institution shall appoint another researcher of similar capabilities to take over the project as principal investigator.

NAMES & SIGNATURES

- | | |
|---|----------------------------------|
| 1. Name: | 2. |
| Signature.....
Principal Investigator |
Deputy Director-General |
| Date..... | Date..... |
| 3. Name:..... | |
| Signature.....
Head of Institution (Witness) | |

APPENDIX 5: FORMAT FOR FINANCIAL REPORTING

PRINCIPAL INVESTIGATION:

PROJECT TITLE:

CONTRACT NO.:

PARTICIPATING (HOST) INSTITUTION:

STATEMENT OF EXPENDITURE FOR THE MONTH

.....

DATE	PAYEE	PV #	CHEQUE #	DESCRIPTION	A/C DEBITED	AMMOUNT (GH¢)	ELIGIBLE %	ELIGIBLE AMT (GH¢)	CATE
				1. Travel and Transport					
				2. Accountable Imprest					
				3. Purchase of Goods e. Chemical, Stationery etc					
				4. Procurement of services eg. Repairs and Maintenance					
				5. Purchase of Fixed Assets					

APPENDIX 6: FORMAT FOR TECHNICAL REPORTING

COMPETITIVE AGRICULTURAL RESEARCH GRANT SCHEME

FORMAT FOR PRESENTATION OF PROGRESS AND COMPLETION REPORTS

1. Title of Project
2. Name of principal Investigator
3. Name(s) of Collaborating Scientist(s) if any and their Institutions
4. Reporting Period
5. Abstract of Report
6. (i) Objective of Project and
(ii) Expected Outputs/Results
7. Methodology
8. Major Findings (with data analysis and interpretation)
9. Problems Encountered and Possible Solutions
10. Statement of Accounts to Date
 - (a) Amount received so far
 - (b) Amount spent so far
 - (c) Balance

Note: If it is a completion report, it should also In addition to the above parameters, include the following:

11. Significant technical achievements (description of technologies) generated or verified
12. Significant findings for Policy Makers and Development Planning
13. New research areas identified for future projects
14. Lessons from project implementation that are relevant for future projects
15. Appropriate indicators for impact assessment
16. Mode of Dissemination of Results and whether any Publications have emanated from the project so far.