



BOWEN UNIVERSITY **(Of The Nigerian Baptist Convention)**

THE GUIDELINES FOR APPLYING FOR BOWEN RESEARCH GRANT

1.1 Title of your Research Project

Project title should be short and simple, but informative. It should clearly describe the basic objectives of the proposed project and be understandable by a scientist who is not an expert in the authors' field. Acronyms must not be used.

1.2 Short Summary of the Project in Scientific Language

Provide a short summary (*up to 300 words*) of the proposed project. It should be appropriately informative for other scientists who are not necessarily experts in your field and encompass an overview of the project, including a short background description, the objectives and a brief description of how they will be accomplished, and expected outputs. Considerable attention should be given to the preparation of this item. It is suggested that you write this item last.

1.3 Short Summary of the Project in a Layman's Language

Write a short summary (*up to 150 words*) of the proposed project in a layman's language. It should be concise, clear and informative for non-scientist to understand.

1.4 Duration (in months)

Enter the expected total duration of your project in months (minimum 12 months, maximum 24 months), not including the writing of your report.

2.1 Full Details of Your Publications

Provide full details of your own publications. Group them as journal publications (including manuscripts in preparation), conference papers, posters, reports and degree theses. Start with the most recent ones for each group. List all your major publications, especially those related to your proposed research project, giving author(s), year of publication, title of the article, name of journal or book and page numbers. Also give all information available about articles in press, in particular to which journal they have been submitted. List also the title(s) of your thesis/theses. You may include reports; mark them with an "R".

2.2 Summary of Your Research Experience

Summarise your research experience (*up to 300 words*) demonstrating your scientific competence, relevant to the proposed research. Provide information about the scientific experience you have obtained which prepares you to carry out the proposed research project

2.3 Ongoing Research

Describe your ongoing research (*if any, in not more than 300 words*) focusing on the capacities (e.g. skills and experience) of your Team members. Provide information about any

scientific work in the University that is related to the proposed research project, indicating possible collaboration/help that you may receive during your project.

2.4 Already Established Scientific Contacts

Provide details of scientific contacts already established by you who could provide advice on your project. Give name, field of specialisation, institutional affiliation and e-mail address, and (if applicable) the specific role that they may play in this project.

2.5 Scientific Contacts to Establish

Provide details of additional scientific contacts you would like to establish, in addition to those you already have. Give name(s), field of specialization, institutional affiliation and e-mail address. You can also mention scientific areas in which you would like to establish links with senior scientists.

3.1 Problem(s) to Address

What is/are the problem(s) your research project seeks to address? In *up to 500 words*, provide a background and justification for your research. Identify relevant stakeholders and potential beneficiaries for your proposed project. Formulate your problem statement and support it with facts, citing references. For example: “Vitamin A deficiency affects 63% of children under the age of five in the X region of country Z (Smith et al., 2009)”.

3.2 Scientific Knowledge to Date

What is the current state of scientific knowledge (globally as well as locally) that your research is seeking to build on? Provide a short and up-to-date summary of the present status of scientific knowledge relevant to the research you propose. A critical analysis of the scientific literature should help you to identify existing knowledge gaps. Make reference to local and world-wide literature (e.g. Whatley et al., 2008). The summary must show how your research is built on previous knowledge and how it is innovative, in the way that it represents the next steps. There are several free scientific literature databases available on the internet. You may also want to contact the Library for assistance in finding relevant scientific publications.

3.3 Publications/Literature Quoted Above

Publications/literature quoted in sections 3.1 and 3.2 (provide full details of references). Make a list of references, providing full details of the most important references which support the information in 3.1 and 3.2. Please make the list in a format used by major scientific journals, so that the original publication can be traced. (Author(s), year, title, journal/book, volume/publisher, pages). For example: “Ogunlewe A, B Mohammed and C Okoro. 2009. Effects of vitamin A deficiency in country Z. *Journal of Examples*, 3(1): 6-12”.

3.4 Research Objectives

State the research objective(s) of the project. State the objectives of your research which will contribute to filling (some of) the knowledge gaps you identified in section 3.2. Your objectives should be as specific as possible. Avoid generalisations.

3.5 Scientific Hypothesis

State your scientific hypotheses or research question(s). You should formulate your research question(s) in such a way that it/they can be tested and ultimately either confirmed or rejected through the proposed experiments or observations. A good hypothesis does not predict a general or obvious outcome. An example of a poor research question would be: “Does the addition of manure increase crop yields?” This is already known or a near-certainty. A better

research question would be: “Can addition of manure XX be competitive with current fertilizer regimes for maize production in Osun State with regard to economic feasibility and environmental sustainability?”

3.6 Expected Outputs

State the expected outputs of the project (its deliverables, i.e. what will be achieved at the end of the project). Describe what you expect to be achieved through the activities of your project (in contrast to outcomes, *see 3.7 below*).

3.7 Expected outcomes and contribution

3.7.1 Expected Outcomes

State the expected outcomes of the project. How will your research results be relevant to society? Might your research results be put into use, and if so how? How might the outputs of your project lead to potential outcomes? Outcomes are the consequences of your project which may lead to e.g. awareness raising, changes in behaviour or actions of stakeholders. Usually, outcomes are beyond the reach of the research project itself.

3.7.2 Indicate which UN Sustainable Development Goals your research project will address

List max 3-5 goals that are most related to your project

<https://www.un.org/sustainabledevelopment/sustainable-development-goals>

3.7.3 Putting Science on indigenous thinking

Finally, describe how your proposal has met the Bowen University’s Research Theme of ‘**putting science on indigenous thinking**’

3.8 Research design and data analysis

Applicants are strongly encouraged to seek advice from a statistician/biometrician during the planning stage of the research project in order to make sure that the project design permits appropriate statistical analysis and reliable interpretation of the data that will be generated. Indicate whether you have contacted such a person, and if yes, enter his/her name and institution.

3.9 Project Design

Describe your project design and data analysis, give reference to the literature from which you take your methodologies for experimental design, sample collection and data analysis, or for qualitative research and case- study approaches Summarize and make reference to literature regarding the experimental design or plans for trials and observations, case-studies, etc, that you will use in your project. Also describe the statistical method(s) to be used to analyse the data. Refer to any software you will be using.

3.10 Research Plan

Your research plan - describe clearly the structure and organization of your research project The research plan is an important part of the proposal. This section describes specific details of the work you will carry out (observations, surveys, experiments, etc). Make sure it covers all objectives listed in 3.4. It should cover the entire duration of your research project (1-2 years). Describe in detail what will be done. Present a logical sequence of the research activities. Do not simply provide a list of activities. The description of techniques and methodologies used must be detailed enough so that other researchers could repeat your work, if so desired. Describe where the research will be carried out, give criteria for choosing sites

and samples, sampling methods and sample sizes. Latin names must be provided of all species studied, where known. Provide detailed references for any special methodologies used (there is no need to describe methodologies which are well known by researchers in general, e.g. nitrogen analysis by Kjeldahl or staining by H&E or Gram Stain).

3.10.1 Use of Questionnaire

If you use a questionnaire in your research, you are required to submit a copy with your application. In some cases you may also submit a diagram of e.g. your field trial design or special experimental protocol. If you do, please refer to that diagram in this space.

IMPORTANT! If you will collect information from human subjects (using interviews, questionnaires, etc), or are working with or producing genetically-engineered organisms, dangerous products, or are carrying out experiments that may otherwise raise ethical issues, e.g. regarding the care and use of experimental animals, you should state how confidentiality regarding information gathered from respondents will be guaranteed and how safety regulations and international standards will be adhered to.

In the “Project Timeline” section you are expected to list each significant project activity chronologically, e.g. relevant details on the timing and duration of the activities listed and methodologies described in more detail under 3.10. Indicate when each activity will take place and how long it will last. For example a sampling period may last from month 1 until month 5, partly overlapped by chemical analysis which may last from month 3 until month 12.

4.1 Project Budget

The budget should cover the whole duration of project period (*period of research*). Budget items which must be relevant to the proposed research should be justified individually and collectively. Thus, the details of purpose and function of each item as well as explain why they are needed in relation to the activities in the workplan of this project must be provided. Inadequate explanation or justification of the required items may result in failure of application or reduction in the approved budget for the project. It is therefore imperative for the applicants to take every necessary step to ensure that they present a proven value for money budget.

5.1 Nomination of Possible Reviewers

Applicants may nominate up to three possible Reviewers, supplying their contact telephone and email addresses. *Please note that this is Optional.*