

1. INTRODUCTION

1.1 The Nigeria Sugar Industry

Sugar is a strategic and essential commodity and an important food item that is also a critical raw material in the food, beverages and pharmaceutical industries. Globally it is a "political crop" that has been used as a vehicle of economic growth leading to rapid rural development and creation of significant employment opportunities. The cane sugar industry in particular has recently witnessed renewed interest due to the emerging importance of the sugarcane as an energy crop used in the production of biofuel (fuel ethanol) and generation of electricity using CHP systems. Concrete benefits to be derived directly from the industry if properly developed therefore include;

1. Generation of large employment opportunities
2. Rapid rural industrialization and development
3. Provision of raw materials for several spin-off industries
4. Self - sufficiency and food security
5. Conservation of foreign exchange

The Nigerian sugar industry is largely under-developed with untapped resources and potentials. The four existing sugar companies, up to year 2000 were wholly owned by government and are characterized by low productivity occasioned by managerial, financial and infrastructural constraints among others. The persistent poor performance of existing industries discouraged further investment in the sector. However, in recognition of the basic role and importance of the sector and desirous of developing and sustaining a viable sugar industry, the government approved the establishment of the National Sugar Development Council (NSDC), with a mandate

to achieve 70% self-sufficiency in the commodity at the earliest possible time.

1.2 The National Sugar Development Council

The National Sugar Development Council (NSDC) was established by Decree No. 88 of 1993 as a parastatal of the Federal Ministry of Industry. Among the functions the Council is charged with are;

- 1.2.1 Drawing up policy guidelines and action programmes on sugar estate development and providing guidance on the development of sugar estates and the organization of outgrower schemes to enhance the viability of sugar factories.
- 1.2.2 Coordinating and facilitating the delivery of sundry assistance (credits, inputs etc) and basic infrastructures to existing sugar plants and various sites identified for development
- 1.2.3 Advising Government in the rate of tariff to be charged on imported sugar based on improvement in local sugar production
- 1.2.4. Setting and regulating quality standards for local sugar producers (in conjunction with other regulatory agencies (SON, NAFDAC) and setting targets and monitoring performance of local sugar producers
- 1.2.5. Establish, maintain and supervise the sugarcane Research and Development Centre to develop new and improved varieties and technologies.

These functions therefore saddle the NSDC with both facilitatory and regulatory roles for the rapid development of the Nigerian sugar sector.

The functions, activities and programmes of the Council are to be financed mainly from the Sugar Levy Fund, which was also established by its law.

The Sugar Sector R&D Fund

1.3. In pursuance of the above, the Council wishes to deploy part of the Sugar Levy to support relevant R&D initiatives that would catalyze the development of the sector. The Council will accordingly provide grants for the following;

- 1.3.1. Development of indigenous new and significantly improved sugarcane varieties
- 1.3.2. Development of improved agronomic practices leading to significantly higher cane productivity
- 1.3.3. Development of new techniques, processes and technologies for factory processing of sugarcane into sugar, ethanol and electricity generation (using sugarcane)
- 1.3.4. Development of new techniques, processes and technologies for the efficient utilization of the by-products of sugarcane processing
- 1.3.5. Studies designed to solve specific field or factory problem identified as a major constraint to higher productivity or efficient production
- 1.3.6. Studies designed to provide new data or information needed by the Council or sugar stakeholders for the general development of the sugar sector.

2. GUIDELINES FOR THE SUBMISSION OF RESEARCH PROPOSALS

2.1 Introduction

The National Sugar Development Council's (NSDC) mandate is to achieve domestic self-sufficiency in sugar production at the earliest possible time.

Council's R&D programme would therefore support projects that have the potential to achieve this mandate. The R&D programme aims to advance the local sugar production technologies and the development of spin-off industries using by-products of sugar cane. This document provides detailed guidelines to proven research and development personnel nationwide in the areas noted in section 1.3. The Council will also occasionally invite research proposals for its support in national newspapers especially for research in areas it seeks to develop.

This programme is open to researchers in both public and private R&D Institutions. While a multidisciplinary research team comprising of a Principal Researcher and other associate researchers would be preferred, individual researchers would be welcomed. The designated Principal Researcher should have demonstrated cognate experience that has resulted in significant proven contribution and recognition as established in their specialized fields.

2.2 Requirements for Application

The following requirements must be fulfilled by each research team that wishes to apply for a grant:

- i) The research should fall within the areas specified above and be specific enough to formulate a practical research plan.
- ii) A research team must appoint a Project Leader from among its members. The Project Leader shall be a person who can represent the research team and plan the research schedule. The Project Leader shall be the accounting officer for the project.
- iii) A detailed research outline is required which should include: a research outline, aims and objectives, justification, benefits, work plan, etc.

2.3 Types of Expenses Covered by Research Grant

2.3.1. Facilities and Equipment Expenses

Research teams should utilize available research facilities and equipment as much as possible. Only in the event that the available equipment cannot be used for carrying out the proposed research can grant funds be used to cover the following expenses:

- i) The cost of purchasing, leasing or renting instruments/equipment considered necessary for carrying out the proposed research.
- ii) The cost of manufacturing, modifying (including design fees) or repairing machinery/equipment. Common machinery/equipment, which is considered to be either pre installed or pre-possessed by research organizations (i.e. costs for construction, modification purchase or rental of buildings and public utility facilities for gas, electricity, water, etc) would NOT be covered.

- iii) The proportion of the grant to be utilized on touring by project personnel should be reduced to the barest minimum. Only essential tours with direct bearing on the research will be entertained

2.3.2 Miscellaneous Expense

Certain other expenses entailed in the research such as the cost of printing and photocopying materials, equipment repairs, data gathering will be covered as well. These miscellaneous expenses must be clearly described in the outline of the proposed budget. Salaries of researchers will NOT be covered

3. FORMAT FOR APPLICATIONS

To facilitate objective evaluation of project proposals, prospective applicants should conform to a unified format of style and presentation. Proposals should be written under the sub-headings itemized and defined below.

3.1 Executive Summary

The executive summary should contain a brief on the salient aspects of the entire proposal such that the NSDC Evaluation Panel would, at a glance, have an insight into the problem(s), justification and the expected research output. It should contain the total amount required as well as the time schedule for execution of the project.

3.2 Introduction

The introduction should contain a brief on the research problem(s) to be addressed and their significance, e.g. National demand and supply gap of the product (quantity), expected quality (specification) and impact on industry and the economy and the gap in knowledge to be filled (as appropriate).

3.3 Project Objectives/Justification

The rationale for the project should be carefully set out. The problem which is intended to be solved and the perceived impact or significance of the result should be indicated. It is important that statements of specific aims, achievable objectives and targets are clearly outlined. All activities should be linked into a work plan or schedule for proper implementation and monitoring.

3.4 Literature Review

Up to date efforts of other local and/or international researchers that are relevant to the proposed project should be reviewed. This is to ensure that work already done is not duplicated. The proposed project(s) should appraise known works that are relevant to the proposed project(s) emphasizing the up-to-date efforts of other researchers.

3.5 Methodology

The detailed method or procedure for accomplishing the research objective should be given, highlighting the proposed activities and tasks. The design, special features of the proposed project and the state (phase) of development should be indicated. Relevant drawings should be attached where applicable. A detailed operational programme of work should be provided to give the panel of evaluators a clear picture of the proposed activities and tasks. For this purpose, the researchers should indicate the expected dates when inspection or project performance evaluation can be conducted by Council officials.

3.6 Facilities

This section should contain a schedule and specifications of equipment/instruments for all facets of the proposed study (where applicable). The researcher(s) is expected to specify the following with regards to required facilities:

- Those on ground and are functioning;
- Those on ground but are faulty. The cost of repairs, invoice and source of the required spare part should be included;

- Those that are located in another institution and modalities for accessing them;
- Critical new equipment and costs, and specify if these do not exist elsewhere in the country. Facilities elsewhere in the country should be patronized, in which case, indicate the cost implications; and
- Source types and quantities of consumables required

3.7 Product Specifications/Project Results

The submission must state, clearly, the nature and specification of the expected results of the project e.g. product analytical properties, quantities and other relevant characteristics of product (e.g. varieties), % improvement or efficiency over current products or techniques etc.

3.8 Budget

A detailed budgetary breakdown is required. The estimated expenses should be clearly linked to specific phases or elements of the proposed activity. It should also be broken down into capital, recurrent, and subheadings such as materials, equipment, consumables, duty tours etc.

The project budget must reflect realistic assessment of actual prices. Where possible, requests for specialized equipment should be accompanied by specifications and pro-forma invoices, estimated operating cost, the amount of time and money for a particular operation etc. In all cases there should be a separate schedule for capital (equipment purchase) and recurrent (consumable) items of expenditure.

Note: A grossly overestimated budget is unlikely to succeed, while an underestimated project will face serious implementation difficulties, so applicants should beware.

3.9 Accompanying Documents

The project proposal should be supported with the following accompanying documents:

3.9.1 Statement of Institutional Support

All applications by individuals should be accompanied by a statement from the applicants' institutional head in support of the proposed activity, if it is not an institutional application

3.9.2 Curriculum Vitae

The curriculum vitae of all principal R&D personnel for each project are to be supplied. In addition to this, the designated principal researcher should submit a statement clearly showing demonstrable competence and leadership qualities in the relevant field

3.9.3 Letters of Reference

Two letters of reference are required in respect of the designated principal researcher, one from a member of the institution to which the applicant is affiliated, one from someone outside the institution who is familiar with the applicant's work.

3.10 Conditions for Acceptance of Proposals

Each organization or the designated principal researcher would

be required to submit a signed statement expressing his willingness to be bonded to the Council for **financial accountability purposes**, if the application succeeds.

Applicants are expected to submit six (6) copies of their project proposals. The decisions of NSDC Evaluation Panel are final.

3.11 Submission of Applications

Applications or request for further information should be sent to:

The Executive Secretary

National Sugar Development Council

Plot 564/565, Independence Avenue, CBD

PMB 299 Garki Abuja

Tel: 09-4614871 - 4614874

FAX: 09-4614870

E-mail: contact@nsdc.gov.ng

Website: <http://www.nsd.gov.ng>

4. ASSESSMENT OF R&D PROJECT

4.1 Introduction

A proposal submitted for sponsorship will be assessed to ensure that:

- ii) it is relevant to the development of the sugar sector;
- iii) it is technically feasible and have potentials for wide adoption
- iv) the raw materials, infrastructure and relevant manpower to conduct the study are available.

4.2 Assessment Criteria

The assessment of research proposals will be based on the following criteria:

- i) Relevance to the mandate of the Council. i.e. The proposal will be examined if it is within the scope and in line with the mandate of the Council.
- ii) The technical feasibility of the project, i.e. Practicability of the research in terms of the methodology, facilities, etc., for successful completion of the research project.
- iii) Capability of the researcher(s) to execute the project to logical conclusions. Each researcher must have sufficient ability and experience to execute the assigned task within the proposed time frame.
- iv) Provision of evidence to back-up claims, e.g sample product(s), films, published journal/technical papers, etc
- v) Availability of minimum facilities for implementation of the proposed research, e.g. adequacy of the

proposed equipments and consumables for the project.

4.3 Assessment of Research Proposal

On receipt of an application, the Council will carry out a preliminary review to determine whether the application contains the prescribed information (outlined in section 3) and whether the applicant fulfils the conditions as prescribed in section 2.2. An application that does not have the required information and documentation may be rejected if the omission precludes the review of the application.

After the preliminary review, copies of the application will be forwarded to a Technical Evaluation Committee (TEC) to assess and select proposals for funding. The TEC members will be selected on their professional qualifications and experience, from the Council and outside (academia, relevant industry, etc). The TEC will assess the research proposal in terms of

- relevance to the production of sugar, ethanol and electricity generation
- ease of adoption or adaptability
- capability of the principal personnel
- adequacy of locally available facilities (within and outside the researcher's institution
- adequacy of local supply of raw materials and other consumables for the projects;

The TEC will also assess the proposed budget. The short listed or selected proposals may have to be defended by the proponents before the TEC. No enquiries will be accepted from

applicants' concerning the reviewers and/or the progress of the evaluations being conducted by them.

The Council's Management will select research projects on the basis of the recommendations of the TEC. The amount to be granted will be determined by the applicant's proposed budget, the recommended budget by the TEC and Council's approved budget for the programme.

4.4 Acceptance of Research Proposal

Successful research proposals will receive a letter of offer from the Council. After the Council receives an acceptance/consent letter, the research team will be required to sign an agreement which will specify the terms and conditions for the execution of the project. The Head or designated official of research institution or the designated principal researcher would be required to submit a signed statement expressing his willingness to be bonded to the Council for **financial accountability purposes**, if the application succeeds.

5 MODE OF RELEASE OF FUND FOR APPROVED R&D PROJECTS

5.1 Introduction

The consent letter must be submitted by the team leader before a grant is released. In the letter of consent, each team member will agree to use the grant only for the research activities covered by the research grant. If any team member violates the terms outlined in the signed agreement and letter of consent, the team's research grant may be partially or completely cancelled. Other measures may be taken against him (her). After the consent letters have been properly submitted and the Council has received a letter of request from the team leader, the grant will be released to the research team.

5.2 Mode of Release of Funds

Funds would be released in instalments according to the guidelines stated fellow:

- i) The initial release of funds (30%) is subject to the verification of the claims of the researcher(s) as indicated under the functions of the assessment panel. Thereafter, subsequent release shall be based on the advice of the monitoring team which shall be in accordance with the agreed work plan and or scheduled of activities.
- ii) The approved budget shall be disbursed in phases; except in special cases, where payment of the total cost of the project less the honorarium is crucial for the success of the project.
- iii) The final release of funds (20%) shall be based on the

final inspection of the project, submission of a technical report and/or sample product and the satisfactory analysis of the project.

- iv) Each research team must prepare and submit to the Council a research report every three months from the project initiation. An accounting report is to be included in the final report.
- v) The research team is expected to submit a comprehensive technical report to the Council at the end of the project.