1.0 Cover Page

Inscriptions on the cover page should include the Machakos University Logo, proposal title, the name (s) of the author(s) and the month and year of proposal submission.

2.0 Project Title

The title should be concise but scientifically valid and sufficiently descriptive to reflect the nature of the proposed work. The title of the project once approved cannot be changed or modified without the written consent of the Research Office.

3.0 Executive Summary

A summary of the proposed project should be submitted, mentioning briefly, the objectives, methodologies, proposed activities and the budget.

4.0 Introduction

In this section the applicant should broadly describe what needs to be known about the subject or topic. What general facts (scientific, socio-economic or geo-political) should be known about the area? What general factors may have necessitated this work?

5.0 Status of Knowledge and Expected Contribution

In this section the applicant gives the findings of the **literature review**. The research applicant must show the interrelationship of what has been done by others in the field and what he/she intends to do. The following questions are relevant: What is known about this topic? Who has worked on this topic before, and when? What did he/she do, how did he/she do it and what were the findings? What (relevant) areas/studies were not done and how do these impact on negatively on knowledge/development in this field? What technological/knowledge gaps shall be filled by these studies? What is lacking? Why now? What are the **hypotheses**, if any? It should reflect a thorough survey of the existing state of knowledge and how and in which way the intended work is going to contribute to the advancement of knowledge in the context of the problem to be solved, or bring about socio-economic development. If there is an overall **conceptual framework** it should be described here.

5.0 Project goal(s) and Objectives

A clear statement of the general problem(s) or issue(s) at hand should be given. **Strategic goal(s)** to which the solution of the stated problem(s) will contribute should be explicitly stated. It should broadly answer the following questions: What is the project supposed to achieve globally/regionally/nationally or within the target community? After all the work is done, where does it lead? In addition**, specific objectives and targets** must be clearly stated in order to facilitate monitoring and evaluation of the project. The questions to be answered are: What specific problems will be solved in order to reach the Goal? Who are the beneficiaries? What are the time frames for achieving each objective? Objectives are not activities and should give benefits to the target group(s). Smart objectives are specific, measurable, attainable/achievable, realistic and time-bound. Where the goal is broad, it may be necessary to state **overall objectives** under which specific objectives and targets are stated.

6.0. Rationale and Justification

This section should clearly show the importance of the project by demonstrating that the anticipated benefits of the project exceed the expected expenditure. The proposal should also show how the results of the research would be able to reach the end users and bring about socio-economic development. The researcher should discuss the following issues as they relate to his/her project: - Problem relevance; Ability to provide solution(s) through research; Technical feasibility of the approach; Probability of research success; Availability of outside scientific inputs; Past performance of researcher(s) in executing similar projects; Contribution to long-term capability building; and cost effectiveness, among any other factors

6.0 Anticipated Outputs

These are the desirable outcomes necessary in order to achieve the stated specific objectives. There may be several outcomes required to achieve each objective. These outputs must tally with the objectives spelt out. In this section discussions on the steps planned (or already taken) to utilize the research results must be given. It should clearly list direct and indirect beneficiaries of the project outputs realised.

7.0 Project Methodology and Activities

The proposal should clearly and thoroughly spell out the methods to be used and the research plan. Depending on its size, a research project may be divided into **Phases**, and each phase is then divided into **Studies**, **Experiments** and **Activities**. The plans should identity and describe each branch of the "project tree". Regardless of how they are organised, project activities should tally with the intended outputs. It should also indicate that the proposed methods and analytical techniques are feasible. This section should also describe the **project implementation sites** and reasons for its selection, **facilities and major items** of equipment, space, and supplies and services to be used. The researcher should also show the project's **relationship to other ongoing projects** in as far as sharing of physical facilities, equipment and data is concerned. Also to be included are **special activities,** such as workshops, group training, tours, scientific research training, group training workshops and manuscript preparation and publication, etc., which are intended for dissemination of research results to the beneficiaries. **Networking** that will be undertaken within the project and with other projects should be described. The researcher should also explain the techniques that shall be used for **data analysis** and the formats in which the data shall be presented.

8.0 Project Time Plan

In this section the researcher gives the total duration of the project and the sequence in which the research activities will be undertaken and for how long they will be done. Appropriate project scheduling techniques should be used to illustrate the project time outlay. The anticipated duration of the project enables the donor (and the project accounting unit) to set aside the funds approved for that duration. It will also assist in drawing up monitoring schedules.

9.0 Impact of Project

It is also important to state the impact of the project that will be realised in the project area (on the environment, people, etc.), after all the planned work is carried out and the outputs realised and assimilated.

10.0 Monitoring and Evaluation Plan

In this section the researcher describes how the activities, outputs and impacts of the project will be monitored and evaluated. What are the factors that will be monitored? What are the project milestones? Who will monitor? What are the indicators of achievement? Who will evaluate? How will the donor be involved?

11.0 Roles and Responsibilities of Collaborators

Which are the collaborating institutions (if any)? Which persons will participate? What are their individual roles with respect to the stated project activities?

12.0 Education and Training Needs

In this section, the capacity development needs of project personnel should be reemphasised, with reference to the details mentioned in the project activities section.

13.0 Project Structure and Management

The researcher should describe the organization of the project and the interrelationships within the project team. Large multidisciplinary projects would normally be broken down into sub-projects, which may be hosted by different departments. How will the project be structured and managed? Which are the critical departments/sections/units responsible for the project? Who heads these departments? What authority channels are established for project management? What is the role of the donor in project management? An organizational structure may be included in this section.

14.0Publication of Results

Indicate where and in which form the results of the work may be disseminated/published.

15.0 Resource Requirements

The applicant should show the breakdown of all the resources required for the project with respect to all the sections mentioned above. These should include the costs of: proposal development (if applicable); planned project activities; monitoring and evaluation; education and training; dissemination of results and project management. The costs should be analysed and grouped under the following categories: personnel (their specialisations and man-years for each); equipment (types of equipment, what for, and numbers of units required); travel and subsistence (places to be visited, by whom, numbers of visits and for what purposes); materials, services and expendables (furniture, stationary, vehicle spares and running costs, equipment maintenance, consultancy, training fees, meetings, special functions and overhead costs). It is important to mention here which resources are already available that will be used by the project. Where the applicant has applied for funds from some other sources he/she should specify the name of the organisation, the date of application, the amount requested and its planned use. A contingency for price change should also be included, normally at a small percentage of direct costs.

16.0 Illustrative Budget

The resource requirements mentioned above are itemized and presented in a clear format. The budget should be attached as an annex to the proposal.

19.0Curriculum Vitae

CVs of the key researchers shall be attached to the proposal.

20.0 Research Budget Format

1. Cost Estimates

Cost estimates for research project proposals should be given under specific subheadings, each representing a group of related expenditure items. Standard research expenditure items are presented under the following Sections:

a) Personnel

- List only titled positions on full-time or part-time assignment to the project
- List researchers by the expertise required by the project: e.g. ecologist, water engineer, biostatistitian, etc. and indicate in parentheses any relevant roles against them, e.g. (principal researcher), (project coordinator) and indicate compensation costs at the approved rate for each grade
- List technical and administrative staff also by their expertise as much as possible, e.g. machinist, computer operator, laboratory technician and indicate compensation costs at the approved rate for each grade

b) Travel (handle separately, Local (include field travel) and International Travel by project staff)

- Transport (for each person/journey, include fare, hire or mileage reimbursement at approved rates)
- Subsistence costs (for each person/journey, include per diem and accommodation costs at approved rates)

d) Equipment

- Laboratory equipment: indicate names, models numbers, number of units required and their costs
- Vehicles: Indicate types, makes and number of units required
- Field equipment: include the costs of any items to be used in field work, such as nets, traps
- Office equipment – office electronics and furniture
- Books and periodicals

e) Materials, services and Expendables

- Vehicle running expenses (spares and service, insurance and licences, fuel cost/km)
- Equipment maintenance (spares and servicing)
- Farm inputs and Field labour
- Stationery and photocopying
- Postage, telephone and internet services
- Membership fees and permits
- Consultancy services

f) Special activities

- Include cost of staff development training
- Include costs of scholarships
- Include costs of planning and conducting training courses, workshops, seminars, tours, etc.
- Costs of reports preparation and manuscripts publication

g) Networking

- Estimate and show cost of collaboration
- May be the cost of research at a partner institution
- May also be cost of travel by either party, specifically for the purpose of collaboration

h) Monitoring and Evaluation

- Cost of meetings
- Cost of evaluation (perhaps by an expert, mission, peer etc.)
- Cost of end-of-project conference

i) Overhead costs (10% of direct costs)
j) Contingencies; usually 10 - 15% of direct costs

2. The Budget

The Budget should be presented in a Table designed as shown below:

a) Columns: Create adequate numbers of columns as follows

Column 1 (extreme left): Items column, wide enough for names of items

Column 2: Units in which the item is measured

Column 3: Rate per unit

Column 4 – n^{th} Column One column for each year of project activity, where n is the final year of project

Last column (extreme right): Totals column

b) Rows:

i) There should be as many rows as there are cost Items.
ii) Rows should be grouped into Sections and each Section should have an additional row for Sub-Totals for the Section. iii) There should be a row for Total Direct Costs, from which the Overhead Costs are calculated and entered in the next row.

iv) A provision for Contingency is made to take care of price changes in the course of implementation of the project (not for unapproved over expenditure).

v) The final row reflects the Total Project Cost.

c. Sample Budget Table

PROJECT TITLE

BUDGET (KSHS.)

Item	Notes	Unit	Rate	Year 1	Year 2	Year 3	Total
1. Personnel costs (a) Senior Scientist /Project Coordinator (b) Ecologist (c) Laboratory Technician (d) Data Analyst							
2. Travel (a) Local i) Subsistence ii) Transport (b) International							

Budget Notes

Items that require additional explanations should be numbered in the "Notes" column and the explanation given against the specific number at the bottom of the Budget Table.

E.g. 1. The Data Analyst will be required only during the final year of the project