# FINANCING FORESTRY RESEARCH MECHANISM: TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY EXPERIENCE

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# **ABSTRACT**

Tanzania is one of the highest biodiversity in the world, containing a significant number of endemic and threatened plant, mammal, bird, reptile, frog, butterfly, snail, and millipede species. Tanzania has set aside about 40% of her area for conservation, including total land mass and marine area, hence categorized as a 'mega-diversity' nation. There are about four identified financing sources of forestry research sector in Tanzania, including Government budgetary allocations, retained income from forest revenues, grants from Tanzania Government and development partners, and private financing. The Tanzania Commission for Science and Technology (COSTECH) as one of the financing sources for Research and Development is an apex body for the coordination, promotion, and popularization of Science and Technology in Tanzania. COSTECH supports Research and Development activities through the National Fund for the Advancement of Science and Technology (NFAST) in terms of grants and awards. The funding from the NFAST specifically aims at: supporting research with special emphasis in the national priority areas; supporting development and transfer of appropriate technologies; supporting capacity building in Research and Development and Science and Technology Institution's (STIs) activities; supporting organization of and/or attendance to scientific fora and information dissemination through publications; promoting innovativeness and inventiveness through the provision of awards; commissioning individuals, groups of individuals, institutions or groups of institutions to undertake research or studies in special areas identified by the Commission; and supporting any other activities whose objectives would be the promotion of STIs for national development.

Key words: Forestry, Financing, NFAST, Commission, COSTECH, National Research Priority.

## INTRODUCTION

Forest finance refers to all forms of financing for sustainable forest management and has been described and emphasized in Addis Ababa Action Agenda (2015), Sustainable Development Goals (2015), National Forest Policy (1998), and the Forest Act of Tanzania (2002). Financing of the forestry research sector in Tanzania occurs mainly through Government budgetary allocations, retained income from forest revenues, grants from development partners, and private financing (United Nations Forum on Forests, 2016). In Tanzania, there has been a significant change towards facilitating forest research financing such as the establishment of the Tanzania Forest Fund under the Forest Act (2002) which aims at among others establishing a sound domestic financing base for forestry research. Besides, the reforms have brought in the private-sector as a new stakeholder in the forestry research. The Tanzania Commission for Science and Technology (COSTECH), which was established in 1986 by the Act of Parliament No.7 as a successor to the Tanzania National Scientific Research Council, is an apex body for the coordination, promotion, and popularization of Science and Technology in Tanzania. Part V of the Act No. 7 of 1986 provides for the

establishment of the Fund which shall be known as the National Fund for the Advancement of Science and Technology (NFAST), which is managed and administered by the Commission (COSTECH Act, 1986). The Fund is basically intended to provide support in terms of grants and awards to Science, Technology and Innovation (STI), Research and Development (RD) activities carried out by Tanzanian scientists within the National Research Priorities.

In order to operationalise the Fund, COSTECH has developed a Grants Manual that provides guidelines and procedures for the provision of various grants and awards. The grants may be given in full or in collaboration with other agencies. The Manual is intended to inform the potential grantees and the general public on the existence of the Fund, how they can access it and the processes used in reaching a funding decision.

## **OBJECTIVES OF THE FUND**

The objectives of the Fund among others include:

- i. Supporting forestry research with a special emphasis in the national priority areas;
- ii. Supporting development and transfer of appropriate technologies;
- iii. Supporting capacity building in RD and STI activities in terms of research, human resources and facilities;
- iv. Supporting organization of or attendance to scientific fora and information dissemination through publications;
- v. Promoting innovativeness and inventiveness through the provision of awards; and
- vi. Commission individuals, groups of individuals, institutions or groups of institutions to undertake research or studies in special areas identified by the Commission to be of the national interest.

## **TYPES OF GRANTS AND AWARDS**

The Tanzania Commission for Science and Technology supports various awards and STI activities, including attending STI events and hosting scientific events. This paper will only deal with research, innovation, fellowships and infrastructure improvement. The following are the categories of grant types:

- i. Open Research Grants: These grants are given to researchers on a competitive basis either basing on calls that have a specific theme responding to specific national priorities or a broad in nature theme allowing researchers to explore diverse areas of scientific inquiry. In this category, there are small or minor, standard, medium, long term and partial subcategories, depending on the amount of the grant award and project lifespan.
- **ii. Commissioned Research Grants**: Refers to the grants commissioned through its RD Advisory Committees to individual researchers/institutions in order to solve specific problems of national interest. They may also support the promotion of new and emerging technologies, technology incubation and transfer, as well as documentation and dissemination of scientific information. The value of the grant awarded depends on the nature of the project.
- **iii. Fellowships Grants**: The grants support Postgraduate studies, short courses and the establishment of research chairs.
- iv. Capacity Building Grants: The grants apply to support research facilities (infrastructure), supporting scientific publication, dissemination of scientific and technological information, the writing of scientific text books and monographs, supporting scientific expeditions within the country and

abroad, supporting the development and strengthening of national, regional and international linkages, and supporting the creation and maintenance of databases on STI for R&D and Higher learning Institutions.

## PROCEDURES AND PROCESSES FOR OBTAINING GRANTS

#### **Research and Innovation Grants**

Research or innovation calls are carried out twice a year, depending on the availability of funds. Normally research calls should address the National Research Priority Areas and are open to Tanzania's citizens attached / working in a Research and / or Higher learning institution (public and private institutions). There are two kinds of research calls, namely open and commissioned calls. Open research calls entail submission of concept note prior to the development of full proposals while commissioned researches require the submissions of full proposals based on the identified problem. Once a call is issued, the applicant is expected to submit a concept note within two weeks from the date of advertisement.

Concept notes are either submitted online using COSTECH Research website form or via emails. The received concept notes are screened in-house by a screening committee before being sent to external reviewers. The reviewers are required to declare conflict of interest and fill forms and adhere to the principles of integrity and non-disclosure. The review process is based on the assessment criteria. The successful concept notes are published on COSTECH website for development of full proposals.

Again, the submitted proposals go through an in-house screening process to ensure that all the proposals are complete and conform to the stipulated rules and regulations of the research grant before being sent out for external review. All research proposals are subjected to a systematic external review processes for evaluation of scientific and technical merits. Generally, at least three scientific reviewers review each submitted proposals. External reviewers are selected based on their qualification, sound experience in the field of study as well as in evaluating projects in their specialty. Reviewers are required to sign a Conflict of Interest.

The reviewers' grades are submitted to COSTECH management for recommendation based on evaluation and availability of resources prior to approval by the NFAST Committee, and forwarded for endorsement by the Board of Commissioners. The successful applicants are notified four months after the submission of the research proposals. On the other hand, unsuccessful applicants are notified upon request.

Once a funding decision has been made, a due diligence is performed to the host institution. It is important that the process is complete prior to the signing of the contract. Key areas to be addressed in the due diligence process are (i) to ascertain whether the applicant's institution has the capacity to manage disbursed funds (ii) to determine whether the commission will obtain value for money outcomes, (iii) to establish the legality of the applicants in their respective institutions and (iv) to determine whether the institution has the required infrastructure to perform the proposed research.

Awarding and contract signing is only done on the basis of a satisfactory due diligence report. A contract agreement is signed between COSTECH, the host institution and the applicant. Issues of ownership of equipment, research results, copyright and patent are addressed in the contract.

Funds are disbursed through the applicant's institution and the request for disbursement should bear an institutional emblem and seal. Funds for subsequent phases are released within four weeks after the receipt of a satisfactory progress report of the previous phase based on technical and financial aspects and together with the agreement as per the contract. Being public funds, the grants must be used for the purpose for which they are budgeted for and properly accounted for. In case the grantee cannot proceed with the work for whatever reason, the unspent funds must be returned to the Commission.

## **Fellowship Grants**

Fellowships are advertised in the print and electronic media for easy access by the potential applicants. The fellowships must be tenable within the country or outside the country as may be recommended by the Commission and as per the availability of resources. The applicant must have evidence of admission. Fellowships may also be advertised tenable at the national or regional universities that have entered into partnership with the Commission for specific programmes of interest to the nation. The selection of students bases on academic and scientific qualifications as well as gender consideration. Fellowships can be subcategorized into Masters Fellowships, PhD Fellowships, Post-doctoral Fellowships, and Short Courses Fellowships. Successful applicants for all post-graduate studies are notified accordingly and required to sign a contract agreement, before the funds are released. The contract agreement is between the Commission, the grantee, the training institution and the grantee's employer.

All funds related to the fellowship are disbursed directly to the university/ institute where the successful applicant pursues the fellowship programme. The university/ institute use its existing internal procedures to disburse the money to the students/ study fellows. The Commission will not entertain direct communication with the students/study fellows regarding the grants.

Accountability and Reporting: Grantees must furnish the Commission with regular progress reports of their studies as agreed in the Fellowship Grants Contract. The university/institute is responsible for making sure that the intermediate reports and the final thesis are prepared by the grantees and copies sent to the Commission. Grantees of Post-doctoral and short course fellowships are required to furnish the Commission with the course report within two weeks of completing the course.

## Support Research and Development and S&T Institutions

The key focus of this grant category is building capacity of Research and Development, and Higher Learning Institutions in terms of infrastructure/facilities and human resource development. Applications for a grant to support RD and STI institutions are received throughout the year. Applicants are notified of the receipt of their applications within two weeks of the receipt of the application at the Commission. The status of the decision on the application is made known by the end of each quarter that is, September, December, March and June. Applicants are normally from public and private universities, RD and STI institutions as well as Non-Government Organisations (NGOs) and professional associations. Applicants for any grant category may only submit one application per year.

### CONCLUSION AND RECOMMENDATION

Research and Development activities are necessary in order to inform, lead, and guide all which needs to be done to achieve the desired transformation of the socio-economic status of a nation. COSTECH supports all sectors as indicated in the National Research Priorities including forestry research. However, the payback for investment or funding in Research and Development by way of tangible achievements will be realized only if the research is demand driven, and in that regard, the outcomes are utilized to solve fundamental as well as pressing societal and development challenges.

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