

MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY



RURAL TECHNOLOGY PARK POLICY

August, 2020

FOREWORD

The key to poverty reduction is accelerated sustainable economic growth and employment generation. Therefore, establishment of viable rural technology park to support rural development is crucial. In rural areas in particular, economic growth, in most instances, depends on the growth of commercial agri-food systems which are efficient and are responsive to evolving market demands. The efficiency of postharvest handling, processing and marketing operations is a major determinant of the prices paid by urban and rural poor and is an important factor in ensuring household food security. Rural technology development has the potential to provide employment for the rural poor in off-farm activities such as handling, packaging, processing, transporting, and marketing of food and agricultural produce. For rural industrialization to be achieved, rural technology development must play a role to contribute to the growth of farm and non-farm rural economies by creating jobs and enhancing income for the rural population.

The relationship between industrial and technological catching up and territorial development is a major economic development puzzle, both in theory and in practice. Industrialisation and technological catching up are key ingredients for national development; but there are no automatisms that guarantee that the benefits will be equally distributed across the territory and the society, and that positive backward and forward linkages will be established, thus fostering an inclusive and more resilient production structure. How to support industrialisation in rural areas and social exclusion is a common concern of the Mbeya University of Science and Technology Rural Technology Park (UST-RTP) Policy which serves as a blueprint for the development of future MUST Rural Industrial Park.

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TABLE OF CONTENTS

| | |
|--|----|
| FOREWORD..... | i |
| TABLE OF CONTENTS | ii |
| ABBREVIATIONS AND ACRONYMS..... | iv |
| CHAPTER ONE: BACKGROUND INFORMATION | 1 |
| 1.1 Introduction | 1 |
| 1.2 MUST Vision..... | 1 |
| 1.3 MUST Mission | 2 |
| 1.4 Situational Analysis..... | 2 |
| 1.4.1 Role of Rural Technology Park | 2 |
| 1.4.2 Technology Gap in Tanzania: Problem Analysis | 3 |
| 1.4.3 Rural Technology Park for Sustainable Production Technologies in Tanzania | 3 |
| 1.4.4 Policy Context for Rural Development Strategy | 5 |
| 1.5 Justification | 6 |
| CHAPTER TWO: POLICY BACKGROUND INFORMATION | 8 |
| 2.1 Introduction | 8 |
| 2.2 Policy Vision | 8 |
| 2.3 Policy Mission..... | 8 |
| 2.4 Policy Goal | 8 |
| 2.5 Policy Objectives..... | 9 |
| 2.6 Philosophy..... | 9 |
| 2.6.1 Market Orientation of Products | 10 |
| 2.6.2 Quality Training..... | 10 |
| 2.7 Policy Scope | 10 |
| CHAPTER THREE: POLICY ISSUES, STATEMENTS AND STRATEGIES..... | 11 |
| 3.1 Introduction | 11 |
| 3.2 Policy Issues..... | 11 |
| 3.3 Policy Strategies | 13 |
| 3.3.1 Dissemination Strategies | 13 |
| 3.3.2 Prototypes | 13 |
| 3.3.3 Skill-based Technologies | 14 |
| CHAPTER FOUR: POLICY COMMUNICATION AND IMPLEMENTATION..... | 15 |

| | | |
|--|--|----|
| 4.1 | Introduction | 15 |
| 4.2 | Organization structure | 15 |
| 4.2.1 | The Technology Research and Development (TRD) Department..... | 15 |
| 4.2.2 | The Training and Marketing (TM) Department..... | 15 |
| 4.2.3 | Organizational Structure of RTP | 15 |
| 4.3 | Composition of the RTP Board | 16 |
| 4.4 | Role of the Board | 17 |
| 4.5 | Job Title: Director, RTP..... | 18 |
| 4.6 | Job Title: Head, Technology Research and Development Department | 20 |
| 4.7 | Job Title: Head, Training and Marketing Department | 21 |
| 4.8 | Job Title: Office Management Secretary | 22 |
| CHAPTER FIVE: MONITORING AND EVALUATION | | 25 |
| 5.1 | Monitoring..... | 25 |
| 5.1.1 | Methodology..... | 25 |
| 5.1.2 | Reporting | 25 |
| 5.1.3 | Schedule of the Reports..... | 26 |
| 5.2 | Evaluation..... | 27 |
| 5.3 | Policy review and amendments | 27 |
| 5.4 | Effectiveness of the Policy..... | 27 |
| CHAPTER SIX: POLICY IMPLEMENTATION STRATEGIES..... | | 28 |
| 6.1 | Policy availability and accessibility..... | 28 |
| 6.2 | Dispute settlement and appeals..... | 28 |
| 6.3 | Ethical consideration..... | 29 |
| BIBLIOGRAPHY | | 31 |

ABBREVIATIONS AND ACRONYMS

| | |
|----------|---|
| ASDS | Agriculture Sector Development Strategy |
| DVC- PFA | Deputy Vice Chancellor - Planning, Finance and Administration |
| DVC-ARC | Deputy Vice Chancellor - Academic, Research and Consultancy |
| FA | Finance and Administration |
| MoEST | Ministry of Education, Science and Technology |
| MRCC | MUST-Rukwa Campus College |
| MUST | Mbeya University of Science and Technology |
| NPES | National Poverty Eradication Strategy |
| PPP | Public/Private Partnerships |
| PSRP | Poverty Reduction Strategy Paper |
| R&D | Research & Development |
| RTBI | Rural Technology and Business Incubation |
| RTP | Rural Technology Park |
| SMEs | Small and Medium scale Enterprises |
| TAS | Tanzania Assistance Strategy |
| TDV | Tanzania Development Vision |
| TM | Training and Markets |
| TRD | Technology Research and Development |
| URT | United Republic of Tanzania |

DEFINITION OF TERMS

RTP stakeholders: Refers to all MUST alumni, development partners and rural community with targeted groups.

Rural Technology Park (RTP): Means the Technology for Rural Empowerment. It is a property-based initiative, which has formal and operational links with the University, designed to encourage the formation and growth of knowledge-based rural industries or high value-added firms, those resident on rural site.

Indigenous Technology: this refers to the technological knowledge, skills and resources transmitted or handed down from the past indigenous people to present ones to meet their needs by means of investigating, designing, developing and evaluating products, process and system with an intention of solving the practical problems. It is used by native inhabitants of a region and it constitutes an important part of its cultural heritage. That is, it is a technology that has been developed in one's native place which should be made/manufactured and developed in the native place.

Rural: It relates primarily to areas that have relatively low population density compared to cities, areas where transport and communications need to cover larger distances making travel and service provisions relatively difficult and costly. However, in this document the definition also includes towns that are located in these areas and which are linked to them culturally and economically by acting as focal point for people in the surrounding areas.

Rural Technology: It is the application of scientific and other organized knowledge to practical tasks by hierarchically ordered systems that involve people and machines as the know-how and creative process that may use tools, resources, and systems to solve problems, to enhance control over the natural and man-made environment in an endeavour to improve human conditions in rural areas.

Technology transfer: It implies interaction between technology sponsors and users and results in actual innovation. It refers to all the activities

leading to the appropriate adoption of a new product or procedure by any group of users. In this context, technology transfer is a process of communication that results in putting research findings or new information into practice.

Rural development: It is the process of improving quality of life and economic well-being of people living in rural areas, often relatively isolated and sparsely populated areas.

CHAPTER ONE

BACKGROUND INFORMATION

1.1 Introduction

The history of Mbeya University of Science and Technology (MUST) dates back from 1986 when Mbeya Technical College (MTC) was established by the Government of Tanzania for the purpose of training Full Technicians at Certificate Level (FTC) under the Russia - Tanzania Training Support. The College existed up to mid-2005 offering programmes in the fields of Architecture, Electrical Engineering, Civil Engineering and Mechanical Engineering. In July 2005, MTC was transformed into a comprehensive multi-disciplinary Mbeya Institute of Science and Technology (MIST) through the National Council for Technical Education (Mbeya Institute of Science and Technology) Establishment Order, 2004.

The transformation was a Government move towards strengthening the College to become a fully-fledged University. Mbeya Institute of Science and Technology registered a number of achievements including restructuring of FTC programmes to Ordinary Diploma programmes and introduction of Undergraduate Degree programmes which eventually lead to expansion of students' enrolment. Following these achievements, on 29th March 2012 after being issued with a University Provisional Licence by Tanzania Commission for Universities (TCU), the Institute was transformed to a fully-fledged University namely Mbeya University of Science and Technology (MUST). The University was granted Mbeya University of Science and Technology Charter, 2013 on 20th August 2013.

1.2 MUST Vision

The Vision of Mbeya University of Science and Technology is to become the leading centre of excellence for knowledge, skills and applied education in science and technology.

1.3 MUST Mission

The mission of Mbeya University of Science and Technology is to develop academically, technologically and socially competent students, staff and other stakeholders who will be responsive to the broader needs and challenges of the society, specifically by:

- (a) Facilitating appropriate tuition, practical training and support according to the needs of students and other customers.
- (b) Encouraging staff commitment to quality education and services including research, consultancy and innovation.
- (c) Fostering lifelong learning, honesty and responsibility.
- (d) Promoting an environment conducive to human development.
- (e) Promoting effective entrepreneurship and usage of appropriate technology that meet national and international needs and standards through skills and practical oriented Training, Research and Consultancy.

1.4 Situational Analysis

1.4.1 Role of Rural Technology Park

The role of Rural Technology Park (RTP) is to support the Government of Tanzania in bringing appropriate technologies to rural communities. The Park will deliver to the surrounding community innovation and entrepreneurship skills to promote and support the initial stages of technology development of RTP. The main purpose behind RTP is to equip the underprivileged sections of the society by empowering them with skills that can be applied for livelihood improvement. Empowering the backward classes and masses with livelihood skills assures steady growth and development that is so essential. This strategy is expected to help in poverty reduction by imparting skills to the rural people and giving them an opportunity for productive empowerment and to contribute to and participate in rural industrialization growth.

1.4.2 Technology Gap in Tanzania: Problem Analysis

Agriculture is the basic industry on which human beings rely for their survival and production. It is also a special sector where natural production and economic growth intertwine with one another. With the property of general merchandise, agricultural products also possess the special nature seen in public social products. Tanzania is an agricultural and developing country, with agriculture being a major activity for its overall national economic and social development. The Government of United Republic of Tanzania has always attached great importance in addressing problems related to agriculture, rural areas and farmers. Historical experience indicates that the fundamental path for agricultural development is technological progress. The key to solving the said problems lies on establishing RTP that strives to promote indigenous technology integrated with modern technologies.

1.4.3 Rural Technology Park for Sustainable Production Technologies in Tanzania

RTP is an essential tool for cultivation and application of multi-disciplinary technology for the enhancement of the supply capacity of major agricultural products such as grain to improve people's dietary pattern and living standard, and effectively guaranteed food safety and production development, hence accelerating the rural industrialization achievements and catalyzing the rapid development of Tanzania's industries.

The RTP will start with developing agricultural machinery and agricultural product processing technologies to improve labour productivity and increase the added-value of agricultural products. To make visible impact of developmental programme through technological interventions in Southern Highland regions, RTP will involve some science-based field groups for integrated and multi-sectoral development in both farm and non-farm sectors. RTP shall focus on developing effective local human resource management through appropriate scientific and technological intervention programmes. The Park shall be providing

demonstrations, development and training by ensuring backward and forward linkages on need based selected technologies; developing location specific technologies and promoting rural entrepreneurship amongst the surrounding communities.

The RTP being around the University premises shall allow for:

- (a) Access to the college and staff on a consultative basis;
- (b) Access to graduate and undergraduate students through internships and corporation arrangements;
- (c) Access to the University facilities and proprietary technology and intellectual property;
- (d) Contractual use of the University owned scientific, engineering and computing equipment;
- (e) Access to the University library systems; and hosting of on-site customized training and education offerings, as well as access to regular and continuing education offerings on the University Campus.

The Tanzanian Government has paid much attention to the promotion of small and medium industries as a major thrust in the strategy for economic recovery. However, there are challenges including limited technology parks for industrial promotion, absence of mechanisms to train competent technologist in various types of industries and commerce. As a result, this sector is faced with several constraints including lack of knowledge and assistance for product development and quality improvement of existing enterprises and limited information on potential opportunities that slow down the strategy. Therefore, RTP shall support the development of small and medium industries in rural Tanzania through development of appropriate technology.

In this direction, RTP has been established in Rukwa Region to provide demonstrations, develop specific technologies and promote rural entrepreneurship amongst communities in and around the area.

The RTP shall be also serving as a nucleus of science and technology to empower poor people in nearby areas in terms of appropriate technology back-up and management support/services in various sectors like information, organization and planning; watershed management; agro-forestry processing; sustainable agriculture; horticulture farming; energy application and environment; and non-farm activities covering simultaneously the social engineering aspects with cost effective appropriate technology packages. Capacity building and skill training of people, convergence of income generating activities and creation of sustainable livelihood through the structure of community are major and critical components of RTP to address specific needs. Under RTP an integrated technology package shall be developed to set up family units.

1.4.4 Policy Context for Rural Development Strategy

Development of rural areas is a major concern for social and economic development in Tanzania. The majority of Tanzanians (about 80%) live in rural areas, where poverty is widespread. Given this economic significance, a robust rural economy is necessary to support the country and realize the ambition for Tanzania to become a middle-income nation by year 2025. In this context, the RTP Policy has linkages with other major policy initiatives, all of which are complementary to one another. These policy initiatives include:

- (a) The Tanzania Development Vision 2025 - TDV (1999).
- (b) The National Poverty Eradication Strategy-NPES (1998).
- (c) Tanzania Assistance Strategy - TAS (2001).
- (d) The Poverty Reduction Strategy Paper - PSRP (2000)
- (e) The Agriculture Sector Development Strategy - ASDS (2001)
- (f) Rural Development Policy (2002)
- (g) Community Development Policy (1996)
- (h) National Employment Policy (1997)
- (i) Sustainable Industrial Development Policy (1996)
- (j) National Microfinance Policy (2000)

- (k) Agriculture and Livestock Policy (1997)
- (l) Mineral Policy of Tanzania (1997)
- (m) Tanzania Women in Development Policy (1998)
- (n) National Environmental Policy (1997)
- (o) SME Development Policy (2001)
- (p) The Wildlife Policy of Tanzania (1998)
- (q) National Forestry Policy (1998)
- (r) National Fisheries Sector Policy and Strategy Statement (1997)
- (s) Health Sector Reform (1994)
- (t) Education Sector Reform and Development Programme (1999)
- (u) Cooperative Development Policy (1997)
- (v) Rural Water Policy (1997)
- (w) Women Development and Gender Policy (2000)
- (x) Road Sector Development Programme (1997)
- (y) National Land Policy (1995)

The RTP is, therefore, not only meant to implement the MUST goals and plans, but also a place for integrating and co-ordinating all rural based initiatives as per the Tanzania Development Vision (TDV) 2025, which among others, outlines the long term social and economic development goals and aspirations.

1.5 Justification

In the past five decades, the rural areas in Tanzania have been at the centre of the nation's development strategies. Agriculture accounts for about half of the national income, three quarters of merchandise exports, and is a source of livelihood for about 80% of Tanzanians. Agriculture has strong linkages with the non-farm sector through agro-processing, urban markets, and export trade. Trends in poverty reduction are highly dependent on the growth of agriculture and related rural non-agricultural activities.

On the other hand, the economic reforms being implemented by the Government of Tanzania gives the private sector a leading role in driving economic growth. Thus, the promotion of income generating activities, development of a diverse and strong Small and Medium Enterprises (SMEs) sector, and diversifying the skill base through vocational training are integral parts of the private sector development strategy. The issues of rural poverty, high unemployment and migration of young people from rural areas to urban areas have direct relevance, and are the major goal of RTP. Through this Policy, more emphasis shall be given to expanding capacity building for knowledge and skills improvement among the rural community.

Nonetheless, Tanzania has rich natural endowments, with about 28% of the territory established as protected areas to conserve biodiversity. As noted above, however, these natural resources have come under increasing pressure from cutting trees as domestic energy sources, therefore RTP will promote knowledge and awareness in community-based conservation and appropriate technologies for rural communities. In this context, the Park takes into account the promotion of opportunities and access to education, energy sources, health, water, infrastructure, particularly roads and telecommunications and other social services for rural people's ability to effectively engage in economic activities, particularly non-farm activities. Through industrial growth and mobilizing SMEs in rural areas the achievement of employment generation and utilization of local resources will be ascertained.

CHAPTER TWO

POLICY BACKGROUND INFORMATION

2.1 Introduction

Rural Technology Park (RTP) is a general concept of the many names employed to mean the **Technology for Rural Empowerment**. It is a property-based initiative, which has formal and operational links with the University, designed to encourage the formation and growth of knowledge-based rural industries or high value-added firms, those resident on rural site. The Park is established with a view of uplifting and promoting indigenous technologies for rural people in all aspects of life through identifying and facilitating the transfer of appropriate and cost-effective rural technologies to farm and non-farm sectors.

2.2 Policy Vision

The MUST-Rural Technology Park's vision is *to become a centre of excellence in strengthening rural technology development and disseminating appropriate technologies to address rural challenges in Tanzania.*

2.3 Policy Mission

To promote rural industrialization through bringing appropriate technologies to rural community, help in poverty alleviation by imparting skills to rural people and giving them an opportunity for productive employment, contribute to and participate in economic growth.

2.4 Policy Goal

The Goal of MUST-RTP is to develop interdisciplinary indigenous, rural and appropriate technologies, research and training in the country and ensure their sustainable adaptation of the technologies to the environment of Tanzania and avail them to public and private sector for multiplication for rural development. Specifically, objectives of MUST-RTP include to facilitate transfer of technology and promote local knowledge-based enterprises, to stimulate and manage the flow of knowledge and technology amongst universities, R&D institutions,

companies and communities, to provide other value added services together with high quality space and services with priority to Energy, Agro-processing and Agro-machinery; hence strengthening the University outreach to rural development strategy to build up the necessary capacity that was needed to bring about a sustainable development in the rural areas.

2.5 Policy Objectives

The main objective of this Policy is to provide key Rural Technology Park (RTP) issues and framework for governance of all the Park's related matters that will support effective and efficient implementation of the University goals and objectives in teaching, research and outreach services.

Specific objectives of RTP Policy are to:

- (a) Provide a framework that will facilitate the co-ordinated implementation of University policies and strategies concerned with the technological development for rural communities.
- (b) Support the implementation of the University outreach services including Poverty Reduction Strategy and create a development environment that will contribute to enabling rural communities and households achieving sustainable livelihoods.
- (c) Identify short and medium term priorities that will support the goal of sustainable livelihoods, and contribute to the long term goals, outlined in the University Strategic Plan and Tanzania Vision 2025, of sustained economic growth.

2.6 Philosophy

In order to ensure sustainability of RTP, MUST shall strive to link it with the Government, private sector and individuals. Therefore, RTP shall:

- (a) Develop research proposals for fund solicitation;
- (b) Maintain supports from Government of the United Republic of Tanzania through the MoEST to ensure proper functioning;

- (c) Participate in projects from intermediate organisations in order to generate income from the sale of prototypes; and
- (d) Source income from provision of services to industries.

In order to be effective, MUST-RTP shall be stationed at MRCC where offices and well-equipped workshops will be located. These facilities will be used for technology development, research programmes, attachment of students in the field of appropriate technology and for training of artisans and technicians.

In order to ensure sustainability of the Park, RTP shall establish a technology development and research fund that is open to MUST technical departments and for priority proposals accepted by the RTP Board. The technology development and research fund shall be managed through project management principles.

RTP shall aim at getting structural links, networking and seek active co-operation with re-known international and local institutions.

2.6.1 Market Orientation of Products

RTP shall include a marketing specialist in each project team who will work on a new technology through Reverse Engineering approach. Market assessment shall be done prior to accepting the project proposal, but the Marketing Section shall also develop quality and end-user price criteria. Furthermore, potential clients shall be approached as a way of technology transfer.

2.6.2 Quality Training

RTP will develop appropriate training manuals and methodologies that will be a key element in the dissemination process.

2.7 Policy Scope

This policy applies to all MUST community and other stakeholders that deal with the University on matters pertaining to RTP.

CHAPTER THREE

POLICY ISSUES, STATEMENTS AND STRATEGIES

3.1 Introduction

The RTP will offer services to better tackle complex and fast-moving challenges to rural communities through ejecting, demonstrating and developing indigenous and appropriate technologies for the people. Together with partners, the RTP will analyse the local context challenges to identify connections and patterns to anticipate new avenues of work and act effectively to accelerate development.

3.2 Policy Issues

The fast rate of national industrialization in Tanzania is facilitated by development of industrial estate in rural areas. In this context, the development of Indigenous and Rural Appropriate Technology is needed. Interestingly, one of the core functions of Mbeya University of Science and Technology is to promote technology development. This implies that the University is in good position to fulfil the policy demand.

3.2.1 Policy Issue

Development of indigenous and rural appropriate technology in the Country.

Policy Statement

The University shall commit itself to provide a flexible, secured and sustainable technology development park as an enabler to the development of indigenous and rural appropriate technology in the Country.

3.2.2 Policy Issue

Rural industrialization support.

Policy Statement

The University shall commit itself to ensure the provision of the technology services in rural areas by defining and empowering Small and Medium

Enterprises (SMEs), along with the RTP as the central coordination point of contact for all rural industrialization support.

3.2.3 Policy Issue

Training and research.

Policy Statement

The University shall make a dedicated approach in order to be able to plan for capacity building and develop, coordinate as well as implement training when the need arises; commit itself to ensure that direct technology development assistance, professional network and relationship support, educational programmes and facility-based services are provided to business incubators.

3.2.4 Policy Issue

Transfer of appropriate and cost-effective rural technologies to farm and non-farm sectors.

Policy Statement

The University shall contribute to improving sustainable rural development through identifying and facilitating the transfer of appropriate and cost-effective rural technologies to farm and non-farm sectors and make better use of the available local resources in their locality; act as a driver of Public/Private Partnerships (PPP) and hence complement the Mission of the University and efficiently leverage existing initiatives, specifically in expanded outreach, enhanced image and improved structure for technology transfer.

3.2.5 Policy Issue

Outreach services to rural community.

Policy Statement

The University shall support in bringing technology to rural community, commercialize innovation results in technologies that have the strongest impact to rural community and look for new spin-off start-up companies in order to generate rural economic activity and create jobs; provide outreach services to rural community and build on experience and seek active co-operation with institutes in Tanzania and beyond.

3.2.6 Policy Issue

Sustainable Rural Technology Development.

Policy Statement

The University shall establish a research fund that is open for MUST technical departments of and for priority proposals accepted by the Board of RTP; and lay the premises (infrastructure) at MRCC where offices and a well-equipped workshop will be realised to be used for research, attachment of students in the field of appropriate technology, and training of artisans and technicians of intermediate organisations with which RTP will co-operate.

3.3 Policy Strategies

3.3.1 Dissemination Strategies

MUST-RTP shall have two main dissemination strategies, depending on the type of the technology, that is technology that has an output of a concrete prototype (e.g. bread oven) and technologies that consist mainly of skills (e.g. biogas system).

3.3.2 Prototypes

For this kind of technologies, RTP shall be a centre to produce marketable prototypes, and during the process it shall establish links with intermediate organisations that will take care of the dissemination and follow-up. An example of such organisations is NGO's and target groups. RTP shall provide the prototype

to such organisations and train their technicians in installing, maintenance and follow-up of the technology. The RTP shall also train local entrepreneurs to produce prototype for the final customers and provide the required entrepreneurial and/or financial support.

3.3.3 Skill-based Technologies

MUST-RTP will train, provide services, perform research, monitor and evaluate indigenous/appropriate technology production and manufacturers in areas of renewable energy, prototype creation, industrialization and market testing.

The Training and Research Programmes at the RTP will include but not limited to:

- (a) Water Harvesting Technologies;
- (b) Alternative Energy Technologies;
- (c) Rural Technology Business Incubator (RTBI);
- (d) Mechanization of traditional shoes production;
- (e) Cost effective rural housing technologies;
- (f) Product Development from Tribal Jewellery technologies;
- (g) Bee keeping technologies;
- (h) Rural sanitation;
- (i) Biotechnology production;
- (j) Bio-pesticides;
- (k) Apiculture;
- (l) Food processing; and
- (m) Cooking stoves etc.

CHAPTER FOUR

POLICY COMMUNICATION AND IMPLEMENTATION

4.1 Introduction

The ownership of this Policy shall be under the University Council. The Rural Technology Park shall be responsible for its implementation, management and monitoring of the Policy.

4.2 Organizational Structure

In order for RTP to be able to play the double role of a rural technology development and research unit at MUST, and on the other hand develop market-oriented products for the SME sector, it is comprised of two departments:

- (a) Department of Technology, Research and Development and
- (b) Department of Training and Marketing.

4.2.1 The Technology Research and Development (TRD) Department

The main role of the TRD Department shall be to promote research of indigenous, rural and appropriate technologies in Tanzania related to the technical fields of MUST and develop locally adapted innovations. MUST-RTP shall realise this objective through some staff appointed directly in the TRD Department, but it will also draw heavily on research capacity in MUST Colleges and on students who aim to employ themselves in the SME sector and who can get attachments to MUST-RTP to develop the necessary technical and marketing skills.

4.2.2 The Training and Marketing (TM) Department

The major role of the Training and Marketing Department shall be to ensure that innovative technologies developed in a market are disseminated properly. Department shall co-ordinate all social aspects related to product development, namely training, marketing and promotion.

4.2.3 Organizational Structure of RTP

The MUST- RTP organizational structure is shown in Figure 1.

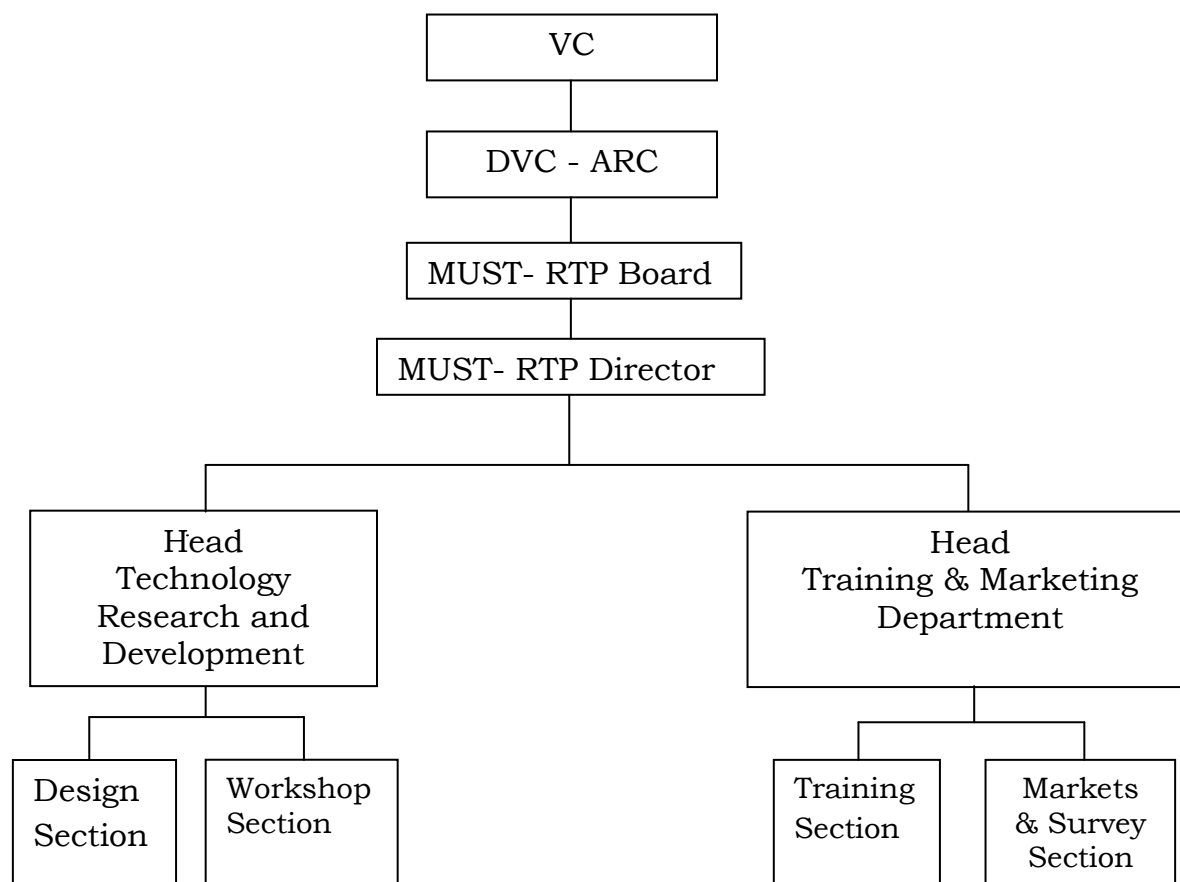


Figure 1: Organisational Chart of MUST- RTP

4.3 Composition of the RTP Board

There shall be RTP Board that shall determine overall direction of RTP at the University, approve projects and endorse guidelines from the RTP Management Team. The RTP Board is not intended to directly represent units of the University. Rather, it is intended to comprise knowledgeable people with ability to provide significant insights and to actively participate in high level of Policy implementations. The MUST-RTP Board shall be composed of 15 Board members, of which the Chairperson shall be DVC ARC. The Director of RTP shall be the Secretary to the Board. Members shall include representatives from some key Ministries (e.g. the Ministry of Education, Science and Technology (MoEST), Ministry of Agriculture, Ministry of Livestock and Fisheries, Ministry of Industries

and Trade) and a representative of the private sector of intermediate organisations with which RTP will co-operate intensively to achieve its aim.

The RTP Board shall be composed of the following members:

- (a) Deputy Vice Chancellor Academic, Research and Consultancy;
- (b) Director of Rural Technology Park;
- (c) Deputy Vice Chancellor Planning, Finance and Administration;
- (d) Two University College Principals appointed by the Vice Chancellor;
- (e) Director of Centre for Innovation and Technology Transfer;
- (f) Director of Postgraduate Studies, Research and Publications;
- (g) Director of Planning and Investment;
- (h) Three (3) members from outside the University, who are representatives from the three Ministries with vast management experience in Technology and Industrial development; and
- (i) Three members from private sector appointed by the Vice Chancellor.

4.4 Role of the Board

The RTP Board shall play the following roles:

- (a) Determine the overall direction of Rural Technology Park at the University;
- (b) Receive and consider for approval inputs from RTP Management Team;
- (c) Recommend to higher University organs the RTP annual plans and quarterly performance reports of the Park for Approval;
- (d) Oversee RTP Policy implementation;
- (e) Develop and review MUST RTP Strategic Plan;
- (f) Indorse the University RTP Policy and Guidelines;
- (g) Advise the University on major policy issues relating to RTP;
- (h) The principal policy making / strategy formulating body of the Park;
- (i) Receive and approve the RTP's progress and performance reports in relation to strategic plan implementation;

- (j) Identify and promote issues of national and international importance related to the Park's mission and objectives;
- (k) Oversee the efficient and effective management of the Park within the broad policy framework set by MUST;
- (l) Govern, manage and regulate the finances of the Park in such a manner and for such purposes as shall promote the best interest of the Park;
- (m) Recommend to the University Senate the appointments of the Director and Heads of Department of the Park, and shall appoint the rest of the staff for the Park; and
- (n) Perform any other duties as may from time to time be delegated to it by senior organs of MUST.

4.5 Job Title: Director, RTP

Responsible to: VC through DVC ARC

Responsible for: All roles in the Director's Office e.g. planning, finance, human resources development and administration, external links, rural technology development, outreach programmes, public relations etc

Key Functions

The functions of DRTP are to:

- (a) Be responsible for development, implementation and review of Strategic Action Plan for the Park
- (b) Plan, direct and co-ordinate efficient and effective management of the Park assuring a high standard of all Park's activities
- (c) Oversee the planning, control and use of all resources including staff, space, finances, equipment and all other assets of the Park.
- (d) Spearhead fund-raising activities for smooth running of the Park, through liaising with the University, Government departments, private and public sector organizations and other donor agencies.

- (e) Oversee preparation of the budget for the Park and submit to higher authority on time for scrutiny and approval.
- (f) Manage the revenue and recurrent budget of the Park effectively abiding to the MUST regulations
- (g) Account periodically (quarterly) for all the expenditure through the Heads of Department, Committee and the Board
- (h) Be responsible for public relations and marketing activities of the Park
- (i) Promote continuous rural technology transfer to and from the Park through national and international linkages.
- (j) Stimulate and encourage new ideas and developments to be undertaken by the Park
- (k) Act as a link between the Park and MUST Colleges, Departments and Units
- (l) Provide accurate and timely information and data for MUST publications, e.g. annual reports and administrative information systems
- (m) Spearhead formation of links with other local and international organizations whose activities are relevant to RTP and
- (n) Carry out any other duties as may from time to time be assigned or delegated by higher authority.

Performance Measures

- (a) Existence of comprehensive and sound plans, programmes and strategies for the Park's activities which are relevant to the University need;
- (b) Regular and up-to-date reports prepared, submitted and approved by relevant organ(s);
- (c) Efficient and effective coordination and management of the Park;
- (d) Mobilisation of adequate resources for the Park and their efficient and effective utilisation;

- (e) Maintain harmonious relations among staff of the Park; and
- (f) Provide practical, effective and acceptable recommendations to the DVC ARC, Board and Senate on all Park's business, and prompt implementation of the decisions/ directives of the same.

Tenure

Three(3) years, renewable once subject to positive annual performance appraisal.

4.6 Job Title: Head, Technology Research and Development Department

Responsible to: Director

Responsible for: All staff working in the Department

Key Functions

The functions of Head of TRD Department are to:

- (a) Participate in the formulation, implementation, evaluation and review of the Strategic Plan for the Park;
- (b) Co-ordinate the Park's activities regarding development of rural technologies;
- (c) Develop and ensure effective quality assurance systems for the technological products and consultancy services;
- (d) Plan, coordinate the technical and entrepreneurship skills development training for the communities;
- (e) Coordinate and administer the cooperation with industry in terms of consultancy and development services of the Park;
- (f) Act as the Director during a vacancy in the Director's Office, or during absence, inability or incapacity of the Director;
- (g) Supervise staff and other functions in the Department;
- (h) Provide institutional analysis and decision support to the Park; and
- (i) Carry out any other duties as may from time to time be assigned or delegated to by the Director.

Performance Measures

- (a) Number of technological products developed;
- (b) Efficient and effective management of skills development programmes for the communities;
- (c) Prompt and proper advice to the Director on matters related to development and dissemination on innovative products;
- (d) Ability to perform the duties of the Director effectively when he/she is away.
- (e) Harmonious working relationship among staff in the Department;
- (f) Harmonious working relationship with other Departments; and
- (g) Effective implementation of all delegated responsibilities.

Tenure

Three (3) years, renewable once subject to positive annual performance appraisal.

4.7 Job Title: Head, Training and Marketing Department

Responsible to: Director

Responsible for: All staff working in the Department

Key Functions

The functions of the Head of TM Department are to:

- (a) Participate in the formulation, implementation, evaluation and review of the Strategic Plan for the Park;
- (b) Sensitize the community on the need and importance of using the services of the Park;
- (c) Co-ordinate the provision of services to the community by establishing appropriate communication channels;
- (d) Effectively market technologies developed and other potentials available capacity of the Park;
- (e) Provide feedback to the Park on the opinion of the community about the Park's outreach programmes;

- (f) Co ordinate with industries and the community in terms of rural technology transfer and management;
- (g) Supervises staff and other functions in the Department;
- (h) Provide institutional analysis and decision support to the Park; and
- (i) Carry out any other duties as may from time to time be assigned or delegated to by the Director.

Performance measures

- (a) External relation of the Park effectively coordinated and administered to assure high customer satisfaction.
- (b) Potentials of the Park effectively marketed and well known by potential clients
- (c) Number of technologies disseminated
- (d) Number of business start-ups
- (e) Effective implementation of all delegated responsibilities
- (f) Harmonious working relationship among staff in the department
- (g) Harmonious working relationship with other departments

Tenure

Three (3) years, renewable once subject to positive annual performance appraisal.

4.8 Job Title: Office Management Secretary

Responsible to: Director

Responsible for: All heads of Department

Key Functions

The functions of OMS are to:

- (a) Organise and supervise the office of the Director of the Park;
- (b) Type and photocopy confidential and general and correspondences from the Park e.g. letters, annual report, professional papers, Board papers etc;

- (c) File general correspondences, personal records for the staff, reports on human resource development etc.;
- (d) Plan activities of the Director's Office including scheduling of major events;
- (e) Receiving and routing incoming mails, telephones and visitors;
- (f) Ordering and collecting stationery for the Park, Safe keeping of stationery allocated to the Park, and issuing to staff when need arises;
- (g) Request materials for office maintenance or work to be done – e.g. service of the office equipment and
- (h) Perform any other duty as may from time to time be assigned or delegated to by the Director.

Performance Measures

- (a) Smooth running of the office of the Director;
- (b) Clear, accurate and timely dissemination of the information from the Director's office;
- (c) Proper filling of all correspondences, personal files, minutes of various meetings etc.;
- (d) Prompt preparation and distribution of papers for the Board meeting and Management meetings;
- (e) Proper preparation of files/information for various meetings and promptness in reminding the Director about such meetings and appointments and
- (f) Satisfaction of secretarial work by the staff of the Park.

Tenure

Renewable contract (where applicable) subject to positive annual performance appraisal.

4.9 Rights and obligations/roles of stakeholders

The RTP stakeholders are all MUST alumni, development partners and rural community with targeted groups.

The target groups for the prototype technologies shall be mainly:

- (a) Intermediate organisations who require adapted technologies in their programmes. Priority will be given to those people working in rural areas; gender will be emphasized.
- (b) The second target group will be from MUST graduates who wish to involve themselves in appropriate techno-based activities to prepare themselves for self-employment through attachment with RTP for a certain period; and
- (c) The third target group will be local technical practitioners.

Major target groups for the skill-based technologies shall be:

- (a) Institutional clients (such as ministries implementing programmes for improvement, communes, regions, and development organisations). Through their programmes, groups of artisans and/or technicians can be formed and trained; and
- (b) Small industry sector for which certain services can be provided, like production of local spare parts using equipment available in the workshops.

CHAPTER FIVE

MONITORING AND EVALUATION

5.1 Monitoring

This Policy has been prepared by considering a number of assumptions and premises. Since the future is not wholly certain, these premises may change and, thus, affect the realization of the set goals. For this reason, there is a need to have monitoring arrangements for tracking the implementation of the policy.

Monitoring of the implementation of the policy will be the overall responsibility of the MUST Management through the Rural Technology Park. In this regard, a monitoring and evaluation committee need to be established. The committee will be chaired by the Deputy Vice Chancellor responsible for Academic, Research and Consultancy. Other members of the committees will be determined as deemed appropriate by the MUST management.

5.1.1 Methodology

Three major methods will be applied in the monitoring process:

- (a) Preparation of detailed annual activity plans which shall be linked to resources available for the immediate year, and shall portray Specific, Measurable, Achievable and Time framed (SMART) quarterly targets.
- (b) Physical observations and interviews/discussions between the committee and the various stakeholders to get informed insights and clarifications on the implementation and effects of the policy.
- (c) Conducting enquiries with the assistance of various survey methods annually designed to obtain the impressions of various stakeholders so as to detect deviations from the policy.

5.1.2 Reporting

Monitoring reports will encompass the following:

- (a) A narrative policy implementation report plus a summary table prepared once every six months;
- (b) Contents of the narrative report will focus on the approved activity plan as outlined in the respective annual work plan, achievements in terms of outputs, the deviations in the planned activities and outputs, measured qualitatively and quantitatively, constraints in the implementation of the Annual Work Plan and any internal and external factors which have affected implementation and proposed remedial actions and the way forward for solving the problems faced, indicating clearly the planned activities to be carried out in the next period (one year depending on the nature of the report); and
- (c) Financial report which shall include all financial income generated (governmental, grants and internally generated) as well as expenditure incurred during the period of reporting.

The reporting period shall be July – June of which, the reporting unit will provide the achievements and constraints of the whole year.

5.1.3 Schedule of the Reports

For the July-June report, the following schedule of reporting will be observed:

- (a) Departments to prepare performance reports on implementation of scheduled work plan activities for July-June of the respective year. The reports will follow a uniform format;
- (b) Departments shall submit annual progress performance reports to the Director of the Park by the 15th day of July every year;
- (c) The Director shall finalize consolidation of the RTP annual progress performance report by the end of July;
- (d) The RTP annual review workshop will be held by end of August each year to discuss progress on the policy implementation.

All reports will pass through the relevant participatory organs of the University for approval.

5.2 Evaluation

Evaluation entails comparison of planned activities and actual performance. MUST-RTP will adopt internal evaluation process of the policy. In this regard, there will be an internal evaluation (to be carried out every two years). The evaluation teams shall be appointed by the Vice Chancellor and will be provided with terms of reference (ToR) which will focus on:

- (a) Assessing the reasons for success or failure of specific aspects of the activity plan;
- (b) Assessing whether the policy is achieving its objectives;
- (c) Finding out whether the effects of the policy are contributing to a better fulfilment of the Mission and Vision of the University and its units;
- (d) Assessing the adequacy of resources being mobilized to implement the policy;
- (e) Determining whether available resources are being utilized efficiently to achieving the objectives of the policy; and
- (f) Determining whether implementation is facing any problem that need immediate or long –term solution.

The evaluation reports will be discussed at all levels including the progress review workshops. The recommendation adopted will be implemented and included in the policy review.

5.3 Policy Review and Amendments

The policy shall be reviewed after every three (3) years or when deemed necessary.

5.4 Effectiveness of the Policy

This policy shall be valid from the date it is approved by the MUST Council.

CHAPTER SIX

POLICY IMPLEMENTATION STRATEGIES

6.1 Policy Availability and Accessibility

The RTP shall do the following to ensure availability and accessibility of the developed policy to all players:

- (a) Make the policy available to all players through University website;
- (b) Disseminate soft or hard copies (whichever is convenient) to the responsible departments, units, frontline players and MUST library; and
- (c) Advertising the newly developed, reviewed or amended policy to the MUST community to be aware of the available policy using various platforms such as radio, website, etc.

For effective implementation of the policy, the RTP shall:

- (a) identify players who are involved in the policy implementation process
- (b) conduct seminar/workshop/training on the newly developed policy;
- (c) prepare action plan/schedule of activities on rural technology development and transfer;
- (d) identify resources;
- (e) prepare implementation budget for all activities in the developed policy depending on the action plan developed;
- (f) market the products developed and their possible applications through active promotional activities through setting up a demonstration hall in RTP building, participation in fairs and shows, networking with relevant rural development organisations and SME organisations, etc.

6.2 Dispute settlement and appeals

In case dispute arises during implementation of the policy the overseer of the policy will do the following:

- (a) Understand the matter that cause the dispute;
- (b) Appoint dispute settlement Committee to handle the matter; and
- (c) The dispute settlement Committee will be required to solve the matter within fourteen (14) days from the day of appointment.

6.3 Ethical Consideration

In order to overcome social conflict, MUST-RTP shall involve itself in all fields open for indigenous and appropriate technology development and will work hand-to-hand with the MUST Centre for Innovations and Technology Transfer (CITT). Initially, it will focus on those fields for which it has access to expertise in MUST. These include:

- (a) Agro based technologies & food processing
- (b) Low-cost construction technology
- (c) Small-scale energy production
- (d) Water supply & sanitation
- (e) Cottage industries
- (f) Cooking stoves,
- (g) Clean water production/bottling
- (h) Productions of farm implements
- (i) Rain Water Harvesting Technologies
- (j) Alternative Energy Technologies
- (k) Rural Technology Business Incubator (RTBI)
- (l) Mechanization of traditional shoes production
- (m) Cost effective rural housing technologies
- (n) Clean water production/bottling
- (o) Bee keeping technologies
- (p) Biotechnology production,
- (q) Bio-pesticides,
- (r) Information Technology, etc

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