



East African Community

**The East African Science &
Technology Commission
(EASTEKO)**

**Strategic Plan
(2017/18 – 2021/22)**



Investing in Science, Technology and Innovation for socio-economic growth and regional integration

Background

The East African Science & Technology Commission (EASTECO) is an Institution of the East African Community (EAC) established by the 5th Extra-Ordinary Summit of the EAC Heads of State on 18th June 2007. The protocol establishing the Commission was signed on 18th April 2007. This is in accordance with the relevant provisions of the Treaty on the Establishment of the East African Community as set out on Chapter 16, Article 103 (a), where the Partner States undertook to promote cooperation in the development of science and technology within the community. The Treaty, in Article 103, recognizes the fundamental importance of science and technology in economic development.

The **Development Objective** of EASTECO is *to promote and coordinate the development, management and application of Science and Technology to support regional integration and socio-economic development.*

The **specific objectives** include:

- i. Regional Science, Technology and Innovation (STI) policy formulation;
- ii. Joint development & application of science & technology;
- iii. Promotion of regional research centres of excellence;
- iv. Exchange and utilisation of scientific information;
- v. Public and private sector partnership in development and application of STI;
- vi. Resource mobilisation for STI in the community;
- vii. Fostering scientific & technological innovation in the partner states (Seeding for future growth);
- viii. Development, adoption & utilisation of ICT and the adoption of new & emerging technologies;
- ix. Promotion of the exchange and utilization of scientific information and to support the dissemination of research and development findings in the Partner States;

The **functions** of EASTECO, as set out in the Protocol establishing the Commission, are to

- a) formulate the policies of the Commission;
- b) formulate policies that shall safeguard the region from hazards that might result from research activities and application of science and technology;
- c) Monitor and evaluate the implementation of agreed regional science and technology policies;
- d) Establishment of think tanks that shall evaluate trends and forecast in science and technology and give recommendations to partner states;
- e) Develop mechanisms for the identification, promotion and growth of

- special talents in science and technology, with particular emphasis on the youth and gender parity;
- f) promote the use and development of indigenous knowledge and technology;
 - g) facilitate the dissemination and internalization of new and emerging technology;
 - h) Promote the development of regional research centres of excellence; Promote inculcation of a science and technology culture in the partner states;
 - i) establish and coordinate the implementation of common ethical guidelines for research and its application in the community;
 - j) Promote exchange and utilization of scientific information;
 - k) Support the dissemination of research and development findings in the partner states;
 - l) enhance collaboration in the training of personnel for the various scientific and technological disciplines

VISION

To contribute to a prosperous, competitive, secure and united East Africa through collaboration in science, technology and innovation.

MISSION

To promote and coordinate the development, management and application of Science and Technology in the EAC Partner States, for an innovative, competitive and integrated East Africa, and for the wellbeing of her people.

The Strategic Framework

The Strategic Plan comprises of a three-tiered strategic framework conceptualised in terms of: 1) Strategic Priorities/Pillars; 2) Strategic Objectives/ Key Initiatives and 3) medium term targets. In the first tier, the strategy identifies four high-level Strategic Priorities, which target outcomes and the impact of EASTECO's activities.

Each Strategic Priority is further delineated into a number of strategic objectives in the second tier. In the third tier each strategic objectives is broken down into medium-term targets that will be achieved in the five-year period, 2017/18-2021/22.

The proposed interventions, take cognisance of EASTECO's mandate and its niche as a dedicated regional body formed with the strategic intent of driving regional cooperation in Science, Technology and innovation (STI). These Strategic Priorities will enable the Partner States to cooperate on a set of regional activities and interventions that transcend boundaries and that add more value through collaboration than if they were undertaken separately. The strategic framework is summarised below:

STRATEGIC PRIORITY 1: Support for evidence-based policies

As a regional body, it is imperative that EASTECO provides support mechanisms to facilitate the harnessing and application of STI at a regional level and at scale. These strategic priorities enable the Partner States to cooperate on a set of regional activities and interventions that transcend boundaries and that would be impossible for them to undertake separately. These are outlined below:

1.1. Development of regional policies and frameworks

The following areas are considered crucial for the development of regional policies and regulatory frameworks in the next five years and are in line with EASTECO's priority intervention areas:

- i. Regional science and technology policy framework
- ii. Innovation policy framework
- iii. Quality and standards policy framework
- iv. Intellectual property rights policy framework
- v. Sustainable agriculture policy framework
- vi. Bio-technology policy framework
- vii. Recognition of indigenous knowledge and technologies policy framework

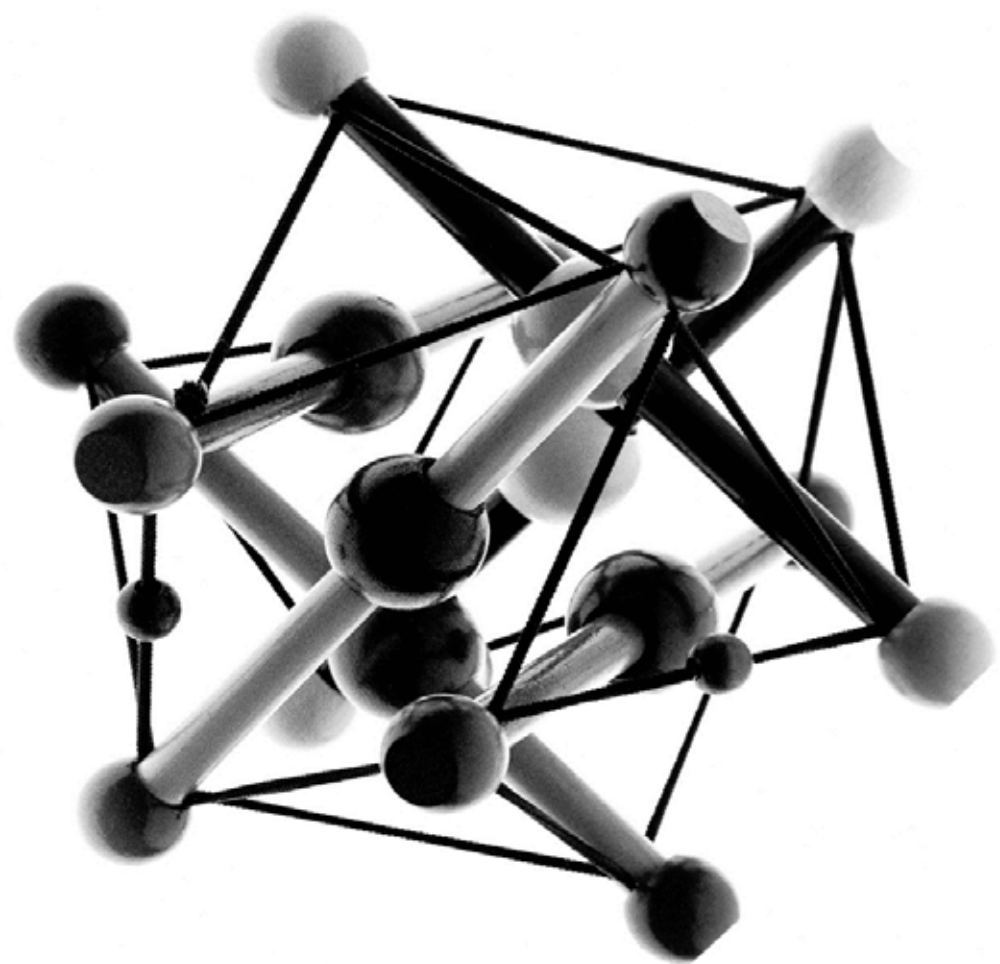
EASTECO will also promote effective engagement with policy makers in order to ensure that STI components are considered in other relevant policies for example trade, industrialisation, agriculture, energy, education, health and environment.

1.2. Strengthening of regional STI knowledge management

EASTECO will facilitate:

- i. The development of a regional knowledge management (electronic) database
- ii. Development of a regional monitoring and evaluation framework.





STRATEGIC PRIORITY 2: Promotion of STI knowledge and innovation

A well-functioning Science, Technology and Innovation (STI) system needs to have among other things political stability and well-functioning institutions, an educated work force, sound research and education infrastructure and linkages between public and private innovation actors. Additionally, such a system requires enterprises that are committed to research and development as well as a balanced intellectual property rights (IPRs) framework. EASTECO will collaborate to IUCEA in the achievement of the following targets:

2.1. Enhancement of STEM education

A well-educated, enlightened and STEM literate work force is a requisite for efficient production, knowledge transfer, technological adaptation and innovation and is crucial for the region's economic growth.

EASTECO will focus its efforts on the following interventions in close collaboration with the Inter-University Council for East Africa - IUCEA:

- i. Development of regional strategies for the enhancement of STEM training which will also seek to address gender imbalances;
- ii. Establishment of regional centres of excellence in areas that are of strategic importance to the region e.g. mechatronics, nuclear energy, oil and gas;
- iii. Promotion of STEM education through various means including fairs, competitions and scholarships;
- iv. Development of a regional programme for nurturing women in STEM.

2.2. Leveraging of scientific research

EASTECO will undertake the following activities in relation to the promotion and leveraging of research in regional focus areas in collaboration with relevant national and EAC institutions:

- i. **Provide support for collaborative linkages:** EASTECO will facilitate agreements on cooperation in Science, Technology and Innovation (STI) between the East African Community and other governments, regional, continental and international institutions;
- ii. **Develop and support for regional collaborative programmes in STI;**
- iii. **Facilitate the establishment of regional centres of excellence;**

- iv. **Support the establishment of networks of R&D institutions** to facilitate data sharing and exchanges, collaborations, improved infrastructure facilities including the development of mechanisms for shared governance and utilisation models for selected research facilities;
- v. **Establish the East African Journal of Scientific Research.**

2.3. Support for the commercialisation of innovation and technology

Support for the commercialisation of innovation and technology will be two pronged. EASTECO will build upon advances made by the national innovation systems of the EAC Partner States while facilitating the identification of areas for innovation where the region has comparative advantages.

EASTECO will support the commercialisation of innovation and technology through:

- i. **Establishment of regional centres of innovation** that are devoted to the development and diffusion of simple, affordable and efficient technologies that address the basic needs of communities.
- ii. **Establishment of a regional technology and innovation fund** to provide merit-based and competitive funding for promising innovations initiated by the innovation centres and other institutions. The Community's innovation hubs and Centres of Excellence will be encouraged to consider the advancement of innovation in emerging technologies.
- iii. **Provision of support for innovative technology solutions in the health sector** in collaboration with the East African Health Research Commission (EAHRC).
- iv. **Initiatives to enhance the Community's innovation capacity** including:

a) **Awards and Recognition** - EASTECO will host an annual award ceremony to recognise regional scientific excellence specifically for innovations and research that contribute to the uplifting of the socio-economic status of the people of the East African Community.

b) **Commercialisation** - EASTECO will facilitate the commercialisation of promising innovations by collaborating with private sector and government institutions to undertake the following:

Table1: EASTECO commercialisation of innovation

Method	Content
Spin-offs and incubation	Commercialisation of research results through spin-offs and support to businesses in the early stages of development through the establishment of regional incubators within research institutes, Universities and Centres of Excellence.
Cluster development and management	Cluster-based cooperation between industry and academia to create synergies that benefit the whole region
Venture capital	Identification of venture capitalists who will enable the transformation of research into new products and services
SME and informal sector (Jua-kali/Nguvu-kazi) and academia links	By creating avenues for business and higher education institutions to meet and work together for their mutual benefit.
Patenting and intellectual property rights	EASTECO will provide training and forums at a regional level to disseminate creative approaches to IPR further stimulating cooperation between higher education and business. Furthermore EASTECO will provide information on available patents



STRATEGIC PRIORITY 3:

Application of STI for socio-economic development

This Strategic Priority specifically deals with the core thematic areas that EASTECO will focus on in the next five years to deliver the biggest impact while ensuring resources are used optimally and effectively. The Partner States that make up the East African Community face common developmental challenges with many of these being regional in nature thus requiring innovative solutions to be applied across boundaries. EASTECO in collaboration with its stakeholders has identified five priority intervention areas for the next five years. These areas hold great potential to contribute significantly, through science, technology and innovation to the socio-economic development of the Community's people.

3.1. Increased value addition in Agriculture

Despite the success of the EAC partner states in selling to new markets, if there are no further improvements to their business environments and to the competitiveness of their agricultural commodities, the EAC states will still be trapped in producing low-skill, low-value products while struggling to obtain a significant value-added share in global trade. There is great potential in expanding high-value food and agricultural exports. EASTECO is in a good position to address the necessary policy frameworks to manage the development and use of biotechnology in the region. EASTECO will therefore play a major role in unlocking the benefits associated with agriculture through:

- i. **Coordination of regional science, technology and innovation initiatives in agricultural value addition** - EASTECO will coordinate efforts in research and development at a regional level aimed at enhancing value addition in agriculture, improving economies of scale in research and development and promoting collaborative programmes in science, technology and innovation at a regional level.
- ii. **Dissemination of innovative and appropriate technological solutions and approaches for improved storage and agro-processing** – to spur rural development and enhance food security by promoting employment in agro-industries, providing market access to agricultural small-holders, enhancing food security by reducing post-harvest losses and extending the shelf-life of food stuffs for the rapidly increasing urban population.

3.2. Promotion of technological solutions in energy and environment

The contribution of STI in the development of ecologically sound approaches to energy sourcing is fundamental. EASTECO will play a key role in the promotion of access to energy through the development of a regional collaborative research agenda thus making available opportunities emerging from research including promoting the production of innovative products using oil and gas. EASTECO will enhance linkages between researchers and industry and conduct advocacy for STI at high political and policy levels that will result in the development and implementation of robust policies and favourable, transparent and stable frameworks to stimulate investments in and the adoption and use of environmentally friendly energy technologies. Furthermore, EASTECO will be involved in the creation of public awareness on the contemporary issues relating to scientific advancements and technological developments that affect the environment to facilitate informed choices and decisions.

EASTECO will support the implementation of the EAC Regional Strategy for Scaling Up Access to Modern Energy Services and Biofuels in East Africa with the following prioritised interventions.

- i. **Promoting the development of renewable energy technology solutions and products** using STI including the facilitation of collaborative programmes among the region's Centres of Excellence.
- ii. **Development of a portfolio of technology tools** for adaptation to climate change among priority sectors
- iii. **Enhancing regional collaboration** in climate change research and development

3.3. Enhancement of biotechnology initiatives

EASTECO will support the strengthening of an already existent regional biosciences platform building on the already gained momentum. This is expected to increase access to affordable, world-class research facilities through collaboration with other institutions. EASTECO will also participate in the publishing of a regional bio-sciences journal and participate in capacity building initiatives at a regional level. Additionally, EASTECO will coordinate the production of a regional bioscience policy framework to govern the application of biosciences in the Community.

More specifically EASTECO will participate in the:

- i. **Coordination of regional bio-technological initiatives**

- ii. Provision of support to the Community's Centres of excellence in biotechnology
- iii. Development of regional biosafety guidelines
- iv. Provision of support for indigenous knowledge and technologies

3.4. Support for export-oriented industrial development and trade

EASTECO will play a key role in enhancing technological capability building in micro and small enterprises by developing policy frameworks that safeguard the use of available intellectual property rights, ensure high quality standards and recognise the value of science and technology in driving innovation. EASTECO will also be instrumental in instituting mechanisms to enhance private sector participation in industrial research and development and coordinate the identification of strategic areas that provide competitive advantages for the region where investments are currently inadequate.

EASTECO will facilitate:

- i. **The networking of technology transfer institutions** including the establishment of Centres of Excellence
- ii. **The promotion of linkages between research institutions, academia, industry and business**
- iii. **Support for technology enabled trade** including the use of ICT to increase the levels of national, regional and international trade and standards and testing.

3.5. Information and communication technology

EASTECO will participate in the promotion of ICTs by facilitating the harmonisation of national ICT strategies and policies building upon consultative stakeholder processes and adapted to regional circumstances. EASTECO will participate in the creation of an environment that encourages skills development, R&D and innovation in ICT and collaboration between technologists, entrepreneurs and development practitioners to use ICT as a tool for driving economic growth. Over the next five years, EASTECO intends to pursue the following targets:

- i. Establishment of a Regional Youth ICT Programme
- ii. Provide support for innovations in and using ICT at a regional level including dissemination of ICT to rural communities
- iii. Utilise ICT as a tool for driving economic growth by enhancing partnerships between technologists, entrepreneurs and researchers
- iv. Coordinating STI initiatives and programmes in ICT at a regional level



Strategic Priority 4: EASTECO foundational commitments

These priorities underline the areas that EASTECO is committed to strengthening because of their broad impacts across all aspects of its mandate

• **Strengthening of EASTECO's institutional framework**

Operational viability is crucial to EASTECO's survival. Operational viability refers to EASTECO's sustainability and ability to deliver on its mandate both now and in the future. In order for EASTECO to deliver on the objectives of coordinating and facilitating the activities of the Partner States and national science and technology institutions in promoting the development of STI in all its aspects, EASTECO needs to operate efficiently and effectively. This will involve focussing on the following goals:

- i. **Enhancing EASTECO's institutional capacity:** Through Human resource capacity building & a Strong Governance
- ii. Improvement of EASTECO's visibility
- iii. Acquisition and employment of appropriate technology for increased efficiency
- iv. Enhancement of collaboration and partnerships

• **Enhancement of stakeholder engagement and partnerships in the STI community**

In order to transform STI, the EAC needs to go beyond the development of isolated national and sectoral policies. Aside from championing the increase in spending on R&D and the provision of support to SMEs, integrated approaches based on the characteristics of the different countries within the Community need to be instituted. EASTECO will:

- i. Establish sustainable funding mechanisms for STI initiatives through:
 - a. **Establishment of a fund** for initiatives that have a regional impact through the provision of grants/low interest loans awarded through an East African Research Fund (EARF). This fund will pool resources from a variety of stakeholders including governments, NGOs, private sector players, bi-lateral and multi-lateral agencies including multilateral finance corporations, philanthropists and the East African Development Bank (EADB);
 - b. **Advocate to increase Partner States funding towards STI** to 1% of GDP and above.



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