



EASTECO ANNUAL REPORT 2021/2022



TABLE OF CONTENTS

MESSAGE FROM THE EXECUTIVE SECRETARY	4
INTRODUCTION	5
GOVERNANCE OF THE COMMISSION	6
STRATEGIC PRIORITIES OF THE COMMISSION	7
Strategic Priority 1: support for evidence-based policies	10
Strategic Priority 2: promotion of STI knowledge and innovation	11
Strategic Priority 3: application of STI for socio-economic development	14
Strategic Priority 4: EASTECO foundational commitments	17
ACHIEVEMENTS IN EASTECO PROJECTS AND PROGRAMME ACTIVITIES	19
i. Development of the East African Regional STI indicators and web-based electronic database	20
ii. Development of technology and innovation database	21
iii. Development of the EASTECO Virtual Conference Software	21
iv. The 2nd regional Science, technology and innovation conference	21
v. The East African Journal of Science Technology and Innovation	24
vi. The launch of East African Regional Research and Development Working Group (RDWG) to manage regional Collaborative Research Programme	25
vii. Training of scientists on knowledge and skills in scientific writing for manuscripts and competitive grant proposals	26
viii. Enhancing EASTECO's Institutional Capacity	27
ix. Advancement of Collaboration and Partnership in Science, Technology and Innovation	28
FINANCIAL REPORT OF EASTECO FOR THE FINANCIAL YEAR 2021/2022	29
ANNUAL PROCUREMENT REPORT	33



MESSAGE FROM THE EXECUTIVE SECRETARY

EASTECO is the institution of East African Community (EAC) that is mandated to promote and coordinate the development, management and application of science and technology in the Partner States for enhanced socioeconomic development and regional integration. The commission is the main regional agency through which the Partner States develop and implement common science, technology and innovation (STI) policies, programs and projects in priority areas that include human resources development, collaborative research, technology development and innovation, among others. The regional STI priorities are to enable and support the sustainable production of goods and services and enhance the economic competitiveness of the community in accordance with the EAC Common Market Protocol of 2010 and the EAC Vision 2050.

The Protocol establishing EASTECO provides that the functions of the Secretariat shall, among others, carry out administrative and financial management of the Commission; coordinate all the activities of the Commission within the scope of the Protocol and prepare and submit reports on the work of the Commission and audited accounts to the Council.

This Annual Report contains activities undertaken by the Secretariat in FY 2021-2022. On behalf of the EASTECO Secretariat, I would like to express my sincere gratitude to the Governing Board, the EAC Secretariat and our partners for continuing to place their trust in us to enable successful collaborations. I would also like to thank EASTECO staff for their exceptional and unwavering commitment, and the tremendous flexibility they have shown to achieve this milestone.

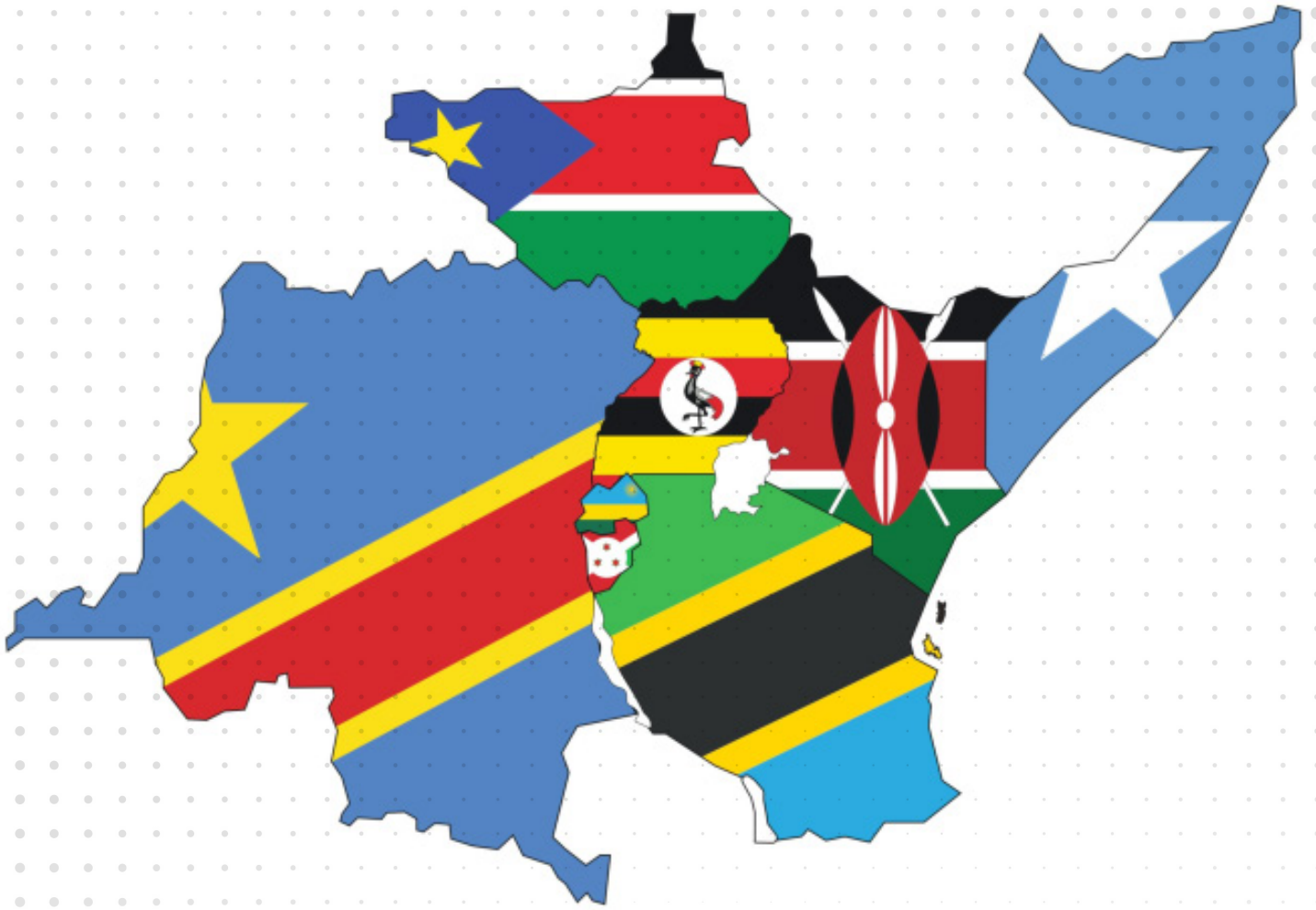
Executive Secretary

INTRODUCTION

The East African Science and Technology Commission (EASTECO) is a semi-autonomous institution of the East African Community (EAC) that was established by the fifth Extra Ordinary Summit of the EAC Heads of State on June 18, 2007. This was in accordance with the relevant provisions of the Treaty on the Establishment of the East African Community as set out in Chapter 16, Article 103 (a), where the Partner States undertook to promote co-operation in the development of science and technology within the Community's Partner States. The overall objective of EASTECO is to promote and coordinate the development, management and application of science and technology to support EAC regional integration and socio-economic development. The mandate of EASTECO is to coordinate and facilitate the activities of the Partner States and national science and technology institutions in promoting the development and application of Science, Technology and Innovation (STI) in all its aspects, including policy development, program, product and project development and implementation, resource mobilization and utilization. The Vision of EASTECO is to contribute to a prosperous, competitive, secure and united East Africa through collaboration in science, technology and innovation. The mission of EASTECO is to enhance the economic and social development of the peoples of the East African Community through the promotion and application of science, technology and innovation. The Core Values of the Commission include Professionalism; Transparency and Accountability; Strategic Leadership; Objectivity and Honesty; Selflessness; and Allegiance to EAC Ideals.

The key objectives for EASTECO include:

- i. To formulate regional Science, Technology and Innovation (STI) policies;
- ii. To facilitate joint development and application of science and technology;
- iii. To promote regional research centers of excellence;
- iv. To promote exchange and utilization of scientific information;
- v. To Promote public and private sector partnership in the development and application of STI;
- vi. To Mobilize resources for STI in the community;
- vii. To foster scientific and technological innovation in the Partner States;
- viii. To promote the development, adoption and utilization of ICT and the adoption of new and emerging technologies;
- ix. To Support dissemination of research and development findings in Partner States



Governance of the Commission

According to the Protocol establishing EASTECO, the organs of Commission are the Governing Board and the Secretariat. The Governing Board membership is composed of 8 members from each Partner State. The Governing Board has specialized technical committees for Policy and regulations, Research and Innovation, Audit and Risk, Outreach and Partnership, and Finance and Administration.

The Governing Board is responsible for providing leadership and vision to the Commission in fulfilling its objectives under the Protocol establishing EASTECO. Technical Committees of the Governing Board are provided for under Article 13(1) of the EASTECO Protocol. They make decisions on behalf of the Governing Board and submit recommendations to the Governing Board for consideration.

During the reporting period, the Governing Board held three ordinary meetings.

6th Ordinary meeting

The **6th ordinary meeting** of the Governing Board was convened through Microsoft Teams by the EASTECO Secretariat in consultation with the Chairperson of the Governing Board on 31st March 2021 pursuant to the Protocol establishing EASTECO and Article 15 (b) of the Governing Board's Rules of Procedure. This meeting was preceded by meetings of the Technical Committees of the Governing Board. The meeting received and took note of the reports of the Executive Secretary of the Commission.

The meeting considered and adopted the following:

- i. EAC Regional Bioeconomy Strategy (2020-2030);
- ii. Concept note on the development of the EAC Space Science Strategy;
- iii. Concept note on the development of the EAC Regional Innovation Strategy 2030;
- iv. Concept Note on development of the EASTECO Strategic Plan;
- v. Concept Note on development of the East African Research and Technological Development Fund;
- vi. Concept note for the final report on the development of Regional Research Agenda and Management Framework (Regional Research Agenda, Regional Research and Development Grant Manual & Regional Research and Development Management Framework); and
- vii. Concept Note for the development of the EASTECO Resource Mobilization Strategy.

7th Ordinary meeting

The 7th Ordinary Meeting of the Governing Board was convened on 19th May 2022. The meeting was preceded by meetings of the Technical Committees of the Governing Board. The Meeting received and took note of the report of the Executive Secretary of the Commission.

The meeting considered and adopted the following:

- i. EAC Regional Strategy for Science Technology, Engineering and Mathematics (STEM);
- ii. EAC Regional Strategy for Indigenous Knowledge and Technology Systems;
- iii. Concept note on the EAC Region Strategy for the 4th Industrial Revolution;
- iv. Concept Note on the EAC Regional Digital Agenda;
- v. Concept Note on the EAC Regional Digital Health Strategy;
- vi. Concept note on the EAC Regional Digital Skills Capacity Building Programme;
- vii. Concept note on the EAC Regional Information and Communication Technology Working Group.

8th

Ordinary meeting

The 8th Ordinary Meeting of the Governing Board was held on 23rd November 2022. This meeting was preceded by meetings of the Technical Committees of the Governing Board.

The meeting considered and adopted the following:

- i. Report of the Executive Secretary of the Commission;
- ii. Report of the Commission for June 2022;
- iii. EAC Audit Commission report for the period ended 30th June 2021;
- iv. Internal Audit Report for the Financial year ended 30th June 2022;
- v. Financial Report for the period ended 31st October 2022.

The Meeting of the Governing Board also took note of progress reports on:

- i. The amendment of the EASTECO Protocol;
- ii. The implementation of the Regional Science Technology;
- iii. The status of implementation of the East African Regional Science, Technology, Engineering and Mathematics Strategy (STEM);
- iv. The implementation of the EAC Regional Strategy on Indigenous Knowledge and Technologies (IKTS);
- v. Development of the 2nd five-year EASTECO Strategic Plan 2022-2027
- vi. Terminal Evaluation of the Strategic Plan 2017/2022
- vii. Development of the Draft East African Regional Intellectual Property Policy
- viii. Development of the Draft East African Regional Science, Technology, and Innovation Policy;
- ix. Development of the EAC Regional Bioeconomy Strategy 2020-2023;
- x. Development of EAC Regional Research Technological Organizations Database;
- xi. Identification and evaluation of technology tools and solutions in agriculture value addition products in EAC region;
- xii. Assessment of Knowledge and Technology Transfer Institutions in the EAC Partner States, to identify potential Centers of Excellence;
- xiii. Establishment of the East African Research and Development Working Group;
- xiv. Establishment of the EAC Research and Technological Development Fund;
- xv. Identification and evaluation of technology tools and solutions in agriculture value addition products in EAC region;
- xvi. Convening of the 3rd EAC Regional E-Health and Telemedicine Workshop, Ministerial Conference and Virtual Exhibition on June 16-17, 2021.

In accordance with the Protocol establishing EASTECO and Rules of Procedure for the EASTECO Governing Board, the 8th Ordinary Meeting of the Governing Board elected Prof. Juma Shabani from the Republic of Burundi as the new Chairperson for the EASTECO Governing Board. The meeting thanked Prof. Walter Odhiambo Oyawa from the Republic of Kenya for his services during his tenure as the Chairperson of the Governing Board.

STRATEGIC PRIORITIES OF THE COMMISSION

EATSECO developed the first 5-years Strategic Plan 2017/2018 – 2021/2022, which began its implementation in July 2017 and will end in June 2022. The Strategic Plan has a three-tier framework that is conceptualized as (i) Strategic Priorities/Pillars; (ii) Strategic Objectives/ Key Initiatives and (iii) Medium Term Targets. The Strategic priorities/ pillars represent what EASTECO must do in order to achieve its vision and fulfil its mandate. The Strategic Priorities/pillars include:

- i. Support for Evidence-Based Policies;
- ii. Promotion of STI Knowledge and Innovation;
- iii. Application of STI For Socio-Economic Development; and
- iv. EASTECO Foundational Commitments.



STRATEGIC PRIORITY 1: Support for Evidence- Based Policies

a) Regional STI policies and frameworks developed

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

b) Regional STI knowledge management strengthened by developing a database and monitoring and evaluation framework

Intangibles like knowledge, intellectual capital and patents are important strategic assets in the accumulation of capital at a regional level as advances in technology lead to the widespread diffusion of knowledge and products from a variety of sources. The ability to use information and knowledge is a source of competitive advantage for countries. This makes it necessary for the Community to develop competencies in the management of information and knowledge as well as their direct application in the production process. In the strategic plan, EASTECO intends to facilitate the development of a regional knowledge management (electronic) database to enhance tracking, collaboration, sharing and dissemination of information and knowledge within the Community to facilitate science and technology research, and develop a regional monitoring and evaluation framework with a set of indicators that have been universally agreed across the region and that best capture relevant STI metrics.



STRATEGIC PRIORITY 2: **Promotion of STI Knowledge and Innovation**

a) Regional strategy for the enhancement of STEM training and education developed

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.

EAC Partner States lack a collective strategy on Science, Technology, Engineering and Mathematics (STEM) training. There is limited capacity to respond to opportunities such as the discovery and exploitation of natural resources that require specialized skills or engage in developmental and innovative activities that require analytical skills. The Community's ability to respond to challenges such as epidemics within the region and the development of infrastructure is also low with most of the STEM jobs being outsourced to multinationals. While the region's governments sign infrastructure contracts with developed nations, there is no systematic requirement within most contracts that the workforce be trained for future development needs. In order to reduce the region's dependence on industrialized nations, it is necessary that the Community develop a STEM literate society that will actively participate in the acceleration of the region's growth and development. This region will struggle to attain the Sustainable Development Goals (SDGs) unless there is a substantial investment in STEM education with the concomitant promotion of scientific research. Regional cooperation in STEM education will yield multiple benefits including impelling the productive sectors to be competitive in a knowledge-based global economy, generating better paid jobs, raising living standards, reducing poverty and promoting a strategy of growth and commercial diversification. EASTECO can play a role in the promotion of STEM education.

EASTECO will primarily 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 centers 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 programs for nurturing women in STEM.

b) Regional collaborative programs and partnerships developed and supported to leverage scientific research

East Africa performs dismally in the standard research metrics of refereed publications and patents. This can only change if African research productivity is much higher and if the limited resources available were concentrated on fewer well-identified topics. The Community needs to take advantage of the 'critical mass' for research that it has by harnessing the capacity of the region's research institutions and researchers in a number of focus areas including agriculture, health, social sciences among others.

Research supports the identification and growth of market-based science and technology products. In addition the private sector can be coordinated to encourage research that provides direct economic benefits to the region. There is significant opportunity to build partnerships within the research community and with other stakeholders including government, civil society and the private sector. The high cost of research including the modernization of facilities can be reduced by utilizing the collective ability of research institutions (both infrastructure and intellectual capacity), having collaborative regional research programs and promoting forums that disseminate research findings at regional level.

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 to 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 programs in STI;
- iii. Facilitate the establishment of regional centers 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 utilization models for selected research facilities;
- v. Establish the East African Journal of Scientific Research.

c) Regional support for commercialization of innovation and technology by establishing conducive environments for technology innovation and uptake through innovation centers and funding

Support for the commercialization 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.

The many steps involved in the innovation process from prototyping and refining products including the stages between the first attempt and the generation of a marketable product are essential but costly and time consuming. Private companies are often unwilling and incapable of investing in such time consuming, risky and costly processes that might not yield adequate returns on sums invested. Additionally, the availability of cheap, low-quality imports stifles the need to innovate. It is therefore necessary to invest public resources in innovation to overcome the obstacles that inhibit highly productive and quality research, design, production and operations.

EASTECO will support the commercialization of innovation and technology through:

- i. Establishment of regional centers 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 centers and other institutions. The Community's innovation hubs and Centers 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:
 - Awards and Recognition - EASTECO to host an annual award ceremony to recognize 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. EASTECO will also have the East African Presidents' Award and a Lifetime Contribution to Science Award that will recognize distinguished scientists and researchers in the region.
 - Commercialization - EASTECO to facilitate the commercialization of promising innovations by collaborating with private sector and government institutions.



STRATEGIC PRIORITY 3: **Application of STI for Socio-Economic Development**

a) Increased value addition in agriculture by harnessing and disseminating technological solutions

With most of the Community's people living in rural areas and being dependent on agriculture, livestock and fisheries, these forms of production remain fundamental to economic growth, poverty alleviation and environmental sustainability. The World Bank estimates that for the poorest people, GDP growth originating in agriculture is about four times more effective in raising their incomes than GDP growth originating outside the sector. New frameworks for designing and evaluating investments in commercial agriculture are thus necessary to increase the productivity and performance of the Community's agriculture. 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 programs 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.

b) Promotion of technological solutions in energy and environment by facilitating the development of renewable energy products and climate change adaptation tools

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 favorable, 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 prioritized 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

c) Regional cooperation in the enhancement of innovative bio-technology solutions including support for centers of excellence in bio-technology, development of bio-safety guidelines and support for the development of indigenous knowledge and technologies

Biosciences represent the next frontier in human and environmental health, medicine and food security. With the impacts of climate change being more discernible, the region needs to rethink its agricultural strategies by intensifying the use of science and technology and transferring the effects of science and technology to poor farmers who cannot participate in commercial farming. Biosciences hold the key to increasing yields per unit area and yields per unit thereby creating enormous potential gains in food production and food security and creating a more equitable and economically inclusive society.

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 to participate in the:

- i. Coordination of regional bio-technological initiatives including the regional Bio-Innovate Programme
- 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

d) Regional support for export-oriented industrial development and trade by facilitating access to institutions and technologies

Manufacturing is an important remedy for unemployment. A strong manufacturing base spurs economic growth through enhanced productivity, leading to higher incomes and therefore higher living standards. Few countries have been able to escape poverty without employing a significant amount of their people in manufacturing activity. The history of economic development reveals that countries need to first start by producing basic household goods. Over time, they move to higher value goods. The informal sector plays a major role in the economies of the East African Community Partner States; however, its contribution to innovation systems has been very low with the sector being largely excluded from national support and investment. 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 recognize 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 to facilitate:

- i. The networking of technology transfer institutions including the establishment of Centers 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.

e) Development of regional capacity in ICT for the promotion of efficient productive and social sectors

ICTs have the power to transform communities, businesses and governments in the region thus driving innovation, entrepreneurship and economic growth. The explosive growth of mobile phones demonstrates the capacity for change across the region with mobile phones now being used as a platform to access unlimited knowledge and information as well as applications that drive access to convenient services including previously inaccessible government services. EASTECO will also 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.

EASTECO 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: **EASTEKO foundational commitments**

a) Strengthening of EASTEKO's institutional capacity, governance and visibility

Operational viability is crucial to EASTEKO's survival. Operational viability refers to EASTEKO's sustainability and ability to deliver on its mandate both now and in the future. In order for EASTEKO 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, EASTEKO needs to operate efficiently and effectively. This will involve focusing on the following goals:

i. Enhancing EASTEKO's institutional capacity:

- Human resource capacity building - EASTEKO needs to attract, develop and retain talent in order to deliver on its mandate. This will involve identifying the required talent, providing adequate compensation for such talent, providing an appropriate environment for talent to thrive and find its optimal use in enhancing the socio-economic welfare of the EAC citizens through STI and regularly evaluating if such talent is being used effectively and efficiently to fulfil EASTEKO's objectives.
- Governance – Article 8 of the Protocol on the Establishment of the East African Science and Technology Commission provides for a Governing Board. During the period of this Strategic Plan, robust foundations will be laid on how subsequent boards and specialised committees of the Board in the years to come will conduct their business; it is therefore imperative that from the onset, the governance of EASTEKO is robust. EASTEKO therefore needs to invest in the training of its board on issues of governance while benchmarking against similar regional institutions and borrowing from their successes.

ii. Improvement of EASTECO's visibility

Without publicity there can be no public support and without public support, every institution will decay. EASTECO will therefore develop mechanisms to facilitate substantive dialogue with key stakeholders and the public at large in order to raise awareness and increase the level of engagement on regional STI initiatives. This will necessitate the use of tools such as social networks, an accessible and interactive website, seminars, workshops, science fairs and exhibitions, surveys, enumeration and evaluation programs.

iii. Acquisition and employment of appropriate technology for increased efficiency:

EASTECO will embrace technology as a tool for the delivery of high impact programs effectively and efficiently while at the same time enhancing accountability. This will include the use of state of the art accounting, communication, security systems and other forms of technology deemed appropriate.

b) Enhancement of collaboration and partnerships to enable sustainable funding and enhancement of partnerships in the STI community

i. 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 therefore establish networks of institutions and stakeholders, creating the space for them to engage in constructive dialogue.

ii. Establish sustainable funding mechanisms for STI initiatives


The opportunity for reform in the steering and funding of science research institutions by providing incentives that focus on excellence and relevance and that serve to concentrate expertise in particular fields of science and technology through the creation of regional centers and networks is significant. EASTECO will develop mechanisms to obtain funding from other sources apart from the East African Community member states. This will involve reaching out to partners and stakeholders. EASTECO will thus have a specialized fund-raising function that sources for financing. In this regard, EASTECO will:

- Establish 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);
- Advocate to increase Partner States funding towards STI to 1% of GDP and above

ACHIEVEMENTS IN EASTECO PROJECTS AND PROGRAMME ACTIVITES



I.



Development of the East African Regional STI indicators and web-based electronic database

The East African Regional STI Indicators and Web-based Electronic Database was developed to strengthen the STI indicators data system and enhance access to STI data and information. There was a creation of a data-collection system that can support the periodic generation of data to feed into the database, developed an online questionnaire focusing on the various indicator categories, thereby allowing partner states to collect data on a particular category where and when need be, and developed a flexible Monitoring and Evaluation and Learning System, which seeks to assess the functionality of the online database. The MEL system proposed captures four key elements that allow for output and outcome documentation and evidence and lessons learnt for feedback. The functionality of the platform has been internally tested and EASTECO Staff trained on functionality and operation of the STI Web Based electronic databases. The STI indicators were validated and data collection protocols will be developed.



II.



Development of technology and innovation database

A regional interactive online platform for the available technologies and innovations in the EAC region was been developed. The objective of the database is to enhance access, adaptation, transfer and diffusion of manufacturing and industrial technologies in EAC region. The data on available technologies, innovations, facilities, industrial experts, projects and programs have been collected from the research and technology organizations in EAC to populate the database. The database is functional and operational. Pilot data was collected from secondary sources to test the functionality of the database which is accessed through the link: <https://eacinnovations.easteco.org/>

III.

Development of the EASTECO Virtual Conference Software

The EAC Council of Ministers directed that all meetings and events of EAC organs and institutions be organized in a hybrid manner. It was against this background that EASTECO developed a virtual Conference Platform that was customized from the floor virtual conference platform Enterprise License for events. EASTECO designed, created, deployed, and is currently maintaining the event software for EASTECO users and functions. As a result, EASTECO envisages to continue to fulfill its mandate and implement its activities with limited disruptions, even in times of restricted movements as was in the case of Covid-19 pandemic. The virtual conference platform can be accessed through the link: <https://events.easteco.org/>

IV.

The 2nd regional Science, technology and innovation conference



Plenary session of the 2nd STI Conference, Hotel du Lac Tanganyika Bujumbura, Burundi. October 27- 29, 2021

EASTECO and IUCEA co-hosted the Second EAC STI Conference and Exhibition on October 27-29, 2021, at Hotel du Lac Tanganyika, Bujumbura, Burundi. The conference was officially opened by the guest of honor, the President of the Republic of Burundi, who was represented by the Minister for Education.

The theme of the conference was the role of science, technology and innovation in EAC regional. The subthemes were Agriculture, food security and rural development; Health and wellbeing; Infrastructure and energy and industrial development; Natural resources and environment; Information and communication technology; and Science, technology, engineering and mathematics. The conference thus provided platform for STI stakeholders in the EAC to share their experiences and results within knowledge and technology generation, translation and transfer chain to foster regional integration and socio-economic development among partner states. The conference aimed to provide a platform for information and knowledge sharing through presentations, exhibitions and publication; enhancing dissemination of research results through publication in peer review journals; promoting networking and collaboration among the scientific community; and promoting uptake of research findings by industry for development of policies, products and services. A total of 7 keynote addresses and 26 scientific presentations were made in the plenary sessions. Additional 38 presentations were given in the parallel sessions.

Participants were drawn from national and international organizations including universities, research institutions, private sector, STI regulatory authorities, bureaus of standard of Partner States, and United Nations (UN) office for disarmament affairs. The Conference was attended by over 1742 participants, majority of whom (28% were from Uganda. The Conference was officially opened by Prof Fredrick Busirimana, the guest of honor, and attended by other dignitaries including Ambassador Jean Bosco Barege, representing CP Jimmy Hatungimana, mayor of Bujumbura; Frederic Bangirinama representing Prof. Francois Havyarimana, minister for national education and scientific research, republic of Burundi; Hon Louis Kamwenubusa representing Hon. Ambassador Ezechiel Nibigira, minister for EAC affairs, youth, sports and culture, republic of Burundi; Hon. Christophe Bazivamo, deputy secretary general, productive social sectors, EAC; Prof. Gaspard Banyankimbona, executive secretary, IUCEA; and Mr. Fortunate Muyambi, Executive Secretary, EASTECO.

During the Conference, 5 parallel thematic sessions were held under the following thematic topics:

- Governance of Science, Technology and Innovation for EAC Regional Transformation and Integration
- Capacity Development in Science, Technology and Innovation (STI) for enhanced emergency response in EAC Region
- Contribution of Science, Technology, and Innovation to Industrialization
- Innovation and Business Incubation Ecosystems in EAC region
- Innovation and Business Incubation Ecosystems in EAC region

Out of the papers presented during the conference 15 were published in a special issue of the East African Journal of Science Technology and innovation EAJSTI Vol. 3 (2022)



Ministerial session

At the end of the Conference, the Ministerial Session was held by the honorable ministers responsible for STI in respective EAC partner state or their representatives, and top leadership in EAC organs and institutions. The ministerial session resolved that:

- i. STI policy should be implemented through an established STI masterplan relevant to overall strategic goals of respective Partner States and responsive to actual needs and challenges of the society.
- ii. End products-focused integrated approach model should be adopted in implementation of STI regional policy within EAC to help startup market and harmonize standards, regulations and approach to global market.
- iii. The region should develop common EAC philosophy on STI that can drive development by setting common priority and joint analyses of value chains that complement and synergize strengths of Partner States.
- iv. The EASTECO should set up regional thinktanks that will work on specific priorities addressing specific challenges while drawing on support from broader scientific community. The thinktanks should be composed of a council and consortia that execute the deliberations and enforce home grown solutions. The program should be funded through the consortia.
- v. Single standard for EAC should be establishment of that all Partner States can benchmark on for locally developed products, similar to standards existing for imported products.
- vi. EAC institutions should establish science and technology parks, additional centers of excellence, innovation and incubation hubs.
- vii. Universities should transform themselves into entrepreneurial universities where the focus should be on the creation of spinoff companies and/or licensing of intellectual property assets.

The third East African Science Technology and innovation Conference is slated for October 2023 in Nairobi, Kenya.

V.

The East African Journal of Science Technology and Innovation

The EAJSTI is a multidisciplinary journal, which publishes original research of relevance to the East African Community (EAC), covering science, technology and innovation applications for development. The goal of the Journal is to enhance, advance and disseminate scientific, technological and innovative knowledge that supports regional development.

The objectives include:

- i. To support the development of evidence-based policies
- ii. To provide an avenue for disseminating scientific research and technological findings to researchers, professionals, and other stakeholders in the EAC and beyond
- iii. To increase the number and the quality of scientific publications from the EAC Partner States;
- iv. To advance and open up the new frontiers for further research in science, technology, and innovation domains
- v. To enhance the visibility of the regional scientific and technological research and international recognition of local researchers and professionals

Within the reporting period, the journal published 4 ordinary Issues in two Volumes and one Special Issue as detailed in the table xx.

Volume and Issue	Category	Date of Publication	Number of Articles
Vol. 2 No. 4 (2021)	Regular	25-09-2021	9
Vol. 3 No. 1 (2021)	Regular	17-12-2021	5
Vol. 3 (2022)	Special Issue	16-02-2022	15
Vol. 3 No. 2 (2022):	Regular	31-02-2022	4
Vol. 3 No. 3 (2022)	Regular	30-06-2022	5

The distribution of manuscripts and readership of articles has improved in terms of diversity of disciplines and geographical coverage. The journal obtained listing in two indexing databases including CABI Abstracts and the AJOL.

VI.

The launch of East African Regional Research and Development Working Group (RDWG) to manage regional Collaborative Research Programme

In order to strengthen regional Collaborative Research Programme within the East African community, EASTECO embarked on development of regional collaborative research framework and infrastructure including the systems, processes and tools. These included establishment of regional research agenda, drafting of regional research management framework and piloting of collaborating multidisciplinary research through the first competitive research grant call research under Regional Cooperative Research Grant Initiative (CGI) in partnership with the National Commissions/Councils of Science and Technology (Kenya, Rwanda, Tanzania and Uganda) and the Science Granting Councils Initiative for Sub-Saharan Africa (SGCI). Within the implementation phase, EASTECO conducted Monitoring, Evaluation and Learning on the projects. The pilot research projects provided an opportunity for EASTECO to test and fine-tune regional research management framework consisting of guidelines, procedures, processes in support to regional collaborative research.

In an effort to operationalize the East African Research and Development working group, EASTECO advertised and received applications from scientists in the region for membership to sub-Committees of the East African Research and Development Working Group. The purpose of the RDWG is to stimulate dialogue among stakeholders; promote partnerships within the research community including the government, civil society, the public and the private sector; advise the commission on collaborative multidisciplinary research priorities; promote dissemination of research outputs; and ensure mobilization of resources to support R&D in the region. A total of 168 applications were received. The applications were processed and a total of 12 members appointed to each of the following three sub-Committees of the RDWG 1) Research Grants Sub Committee, ii) Research Communication Sub Committee (RCC); and iii) Resource mobilization and Planning Sub Committee (RMPC). Three Partner States have submitted nominations of membership to the working Group. The working group will be fully constituted and operationalized as soon as the remaining Partner States submit the nominees. The RDWG will be pivotal in the development and coordination of STI activities under research and development portfolio in the East Africa.

VII.

Training of scientists on knowledge and skills in scientific writing for manuscripts and competitive grant proposals

EASTECO, in collaboration with the International Network for the Availability of Scientific Publications (INASP) hosted two training courses in 2021/2022 year. The first course on Research and Proposal Writing in the Sciences online course was offered by AuthorAID for an 8-week period from September to November 2021. The course was offered as a Massive Open Online Course (MOOC) along with a co-sponsorship model. EASTECO was one of the co-sponsors and nominated a group of EASTECO-affiliated researchers to take part in an enhanced version of the course, and achieve a passing score in the quizzes in these units.

A total of 532 scientists registered for the course. The completion rate among participants in the EASTECO group (51%) was substantially higher than that in the open groups (34%), which was attributed to the higher level of support provided by the AuthorAID course team to the participants in the EASTECO group, such as targeted announcements and personalized email reminders, as well as a sense of community.

Table xx: Participation of EASTECO Sponsored scientists in MOOCs in September to November 2021

Group	Total	Women	Men	Total	Total	women	men
Open groups	3258	1520	1715	1121	34%	35%	34%
EASTECO	532	198	332	269	51%	52%	50%

The second course on Research Writing in the Sciences online course was offered by AuthorAID for a 6-week period from April to May 2022. The completion rate among participants in the EASTECO group (160 out of 379, i.e., 42%) was higher than that in the open groups (36%). Encouragingly, 68% of the EASTECO course completers completed the 'research abstract' writing activity, which included both a submission phase and peer submission phase. The completion rate of 42% was lower than 51% that of the group in the research and Proposal Writing cohort of 2021 attained.

Table xx: Participation of EASTECO Sponsored scientists in MOOCs in April May 2022

Group	Total	Women	Men	Total	Total	Women	Men
Open	3753	1805	1920	1339	36%	34%	37%
EASTECO	379	132	246	160	42%	51%	37%

Overall, EASTECO trained 961 scientists trained on knowledge and skills in scientific writing for manuscripts and competitive grant proposals. This achievement has built capacity in the region and the results are reflected in the increased submission in manuscripts to the EAJSTI.

¹The AuthorAID project is coordinated by the International Network for Advancing Science and Policy (INASP), an international development organisation based in Oxford, UK.

VIII.

Enhancing EASTECO's Institutional Capacity

The department of Administration and Human Resources at EASTECO Oversees the functions of Human Resources, General Administration, Protocol, Security, Stores management and Real estates

Under Human Resources management function, during the financial year 2021- 2022, the Commission recruited Executive Secretary and Deputy Executive Secretary. At its 47th Meeting o Extra-ordinary Council of Ministers, which took place in Arusha from 4th to 6th April, Dr. Sylvance Okeyo Okoth was recruited as Executive Secretary (EAC/EXCM47) and Mr. Muyambi Fortunate as Deputy Executive Secretary at EASTECO. Consequently, both Executive Secretary and Deputy Executive Secretary reported on duty on 14th April and 1st of June this year respectively and have assumed their responsibilities. Additionally, during the year under review, other routine activities of managing payroll, leave processing, Staff appraisal were performed.

Regarding administration, the offices of the Commission relocated during the year of reporting. EASTECO became operational in 2015 and in accordance with Headquarters' Agreement between the Government of the Republic of Rwanda and the East African Community on behalf of EASTECO, the Government of Rwanda allocated Offices on rent basis on the Telecom House 2nd Floor. However, last year in April, EASTECO received a notification that Telecom building was to undergo major renovations for a period of one year and the Commission was advised to vacate the premises. Based on this, EASTECO procured new Office space at Queensland Building on 5th floor. The allocated space was partitioned and equipped with necessary infrastructure of Internet telephone and curtains thus suitable for working Offices. The Commission therefore, relocated to this building and has been stationed there since April last 2021.

During this period, all staff and their dependents of the Commission were put on both Life, accident and medical cover throughout the year.

Additionally, during the year under review, six service level agreements are signed between various service providers and EASTECO for provision of Rent, cleaning, security, Internet and Maintenance of all Commission asserts.

IX.

Advancement of Collaboration and Partnership in Science, Technology and Innovation

Within the reporting period, a number of partnerships with development partners and STI stakeholders were established and formalized through various instruments to support EASTECO projects and program. The following Partnership engagement instruments were signed with respective stakeholders:

- i. Memorandum of understanding (MOU) was signed with Inter-University Council for East Africa (IUCEA), while a number of engagements with other stakeholder institutions and development partners are ongoing. The formalized collaboration is aimed at jointly advancing areas of common interest in STI for the benefit of the citizens of the EAC.
- ii. Memorandum of Understanding (MOU) signed with the National Council for Science and Technology (NCST), Rwanda on Cooperation in The Promotion of Science, Technology and Innovation in The East African Community.

Financial Report of EASTECO for the Financial Year 2021/2022

The East African Science and Technology Commission (EASTECO) as an institution of the East African Community is audited annually by the Audit Commission in line with Article 134 – Audit of Accounts - of the Treaty for the Establishment of the East African Community. The Audit Commission is established in Article 134 (1) and is composed of the (Controller and) Auditors General of the EAC Partner States whose functions are to audit the accounts of the Community, Organs and Institutions.

In the financial 2021/2022, East African Science and Technology Commission (EASTECO) got an unqualified (clean) audit opinion from the Audit Commission and herein below are the

FINANCIAL POSITION OF THE COMMISSION

The audited financial position of the Commission is presented below;

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2022

PARTICULARS	2021/22	2020/21
ASSETS	USD	USD
Current Assets		
Cash and Bank	225,895	338,930
Accounts receivable	1,406,469	1,123,910
Total Current Assets	1,632,363	1,462,839
Non-Current Assets		
Property, Plant and Equipment	53,778	79,136
Intangible Assets	20,001	21,056
Total Non-Current Assets	73,779	100,192
Total Assets (A)	1,706,142	1,563,031
LIABILITIES AND NET ASSETS/EQUITY		
Current Liabilities		
Accounts Payable	251,891	107,970
Deferred Income	-	29,849
Total Current Liabilities	251,891	137,820
Non-Current Liabilities		
Staff Gratuity	151,206	229,334
Total Non-Current Liabilities	151,206	229,334
Total Liabilities (B)	403,097	367,153
Net Assets/Equity		
Net Assets/Equity as at 30th June 2022 (C)=A-B)	1,303,046	1,195,878
Total Liabilities and Net Assets/Equity	1,706,142	1,563,031

FINANCIAL PERFORMANCE OF THE COMMISSION

The audited financial position of the Commission is presented below;

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 30 JUNE 2022

PARTICULARS	2021/22	2020/21
REVENUE	USD	USD
Contributions from Partner States	1,545,090	1,526,751
Sundry/Other Miscellaneous Income	16,627	39,740
Total Revenue	1,561,717	1,566,491
EXPENSES		
Salaries, Wages and Employee Benefits	716,263	718,297
Administrative, Governance & Programs Expenses	737,614	488,807
Finance Costs and Foreign Exchange Loss	6,543	7,770
Depreciation Expenses	51,127	46,905
Amortization Expenses	5,735	5,264
Total Expenses	1,517,282	1,267,043
Surplus/(Deficit) for the Period	44,435	299,448

Statement of Comparison of Budgeted and Actual Expenditure of the Commission

The Budget of the Commission for the Financial Year 2021/2022 was USD 1,644,968 detailed as;

- **USD 1,634,968** funded by equal contributions from the EAC Partner States; and
- **USD 10,000** from internally generated funds.

In line with the 6th EAC Development Strategy 2021 - 2026 and the EASTECO Strategic Plan 2017/18-2021/22, the Financial Year 2021/2022 Annual Operational Plan under the above stated budget was pursuing targets and activities including:

- Evidence based regional STI policies developed.
- Scientific and Technological knowledge and Innovation promoted.
- Application of Science Technology and Innovation for socio-economic developed.
- Stakeholder engagement and partnerships for STI enhanced.
- EASTECO's institutional framework for effective and efficient governance and operations strengthened.

The audited Statement of Comparison of Budgeted and Actual Expenditure of the Commission is presented below;

PARTICULARS	Budgeted Amount		Actual Amounts	Variance between Final Budget and Actual
	Original	Final		
REVENUE	USD	USD	USD	USD
Contribution from Partner States & G/Reserve	1,545,088	1,634,968	1,283,895	(351,073)
Sundry/Other Miscellaneous Revenue	10,000	10,000	13,508	3,508
Total Revenue	1,555,088	1,644,968	1,297,403	(347,565)
EXPENSES				
Salaries, Wages and Employee Benefits	848,984	848,984	668,257	180,727
Administrative Expenses	216,738	216,738	279,157	(62,419)
Governance/Statutory Meetings	204,200	204,200	250,682	(46,482)
Programme Expenses	240,566	330,446	315,612	14,834
Finance Costs	6,600	6,600	6,543	57
Capital Expenditure	38,000	38,000	36,838	1,162
Total Expenses	1,555,088	1,644,968	1,557,089	
Performance in Percentage			95%	

Annual procurement report

The Annual Procurement Plan for 2021-2022 was valued at USD. 631,535 for goods, services, works, consulting and non-consulting services – annex three. Table 3 below is the analysis of performance on implementation of the said plan:

NO	PLANNED ITEM DESCRIPTION	BUDGET PLANNED (USD)	BUDGET SPENT (USD)	VARIANCE (USD)	SPEND IN %
1.	Air tickets	70,500	36,069	34,431	51.2
2.	Printing and publicity items	5,601	13,650	-8,049	243.7
3.	Production, workshop materials, Photocopying & Binding Services	10,200	1,811.4	8,389	17.8
4.	Vehicle Fuel and maintenance of vehicle, plant, equipment.	13,400	2,056.1	11,344	15.3
5.	Staff entertainment/hospitality	6,400	3,180.3	3,220	49.7
6.	Conference, accommodation and catering services	10,420	2,720.0	7,700	26.1
7.	Office maintenance, supplies, computer consumables & stationery.	20,400	11,062.3	9,338	54.2
8.	Staff medical cover's premium	42,000	35,983	6,017	85.7
9.	Staff life and personal accident covers premium	24,000	12,023	11,977	50.1
10.	Insurance covers premium on Assets, Cash & Vehicle	7,200	735.5	6,465	10.2
11.	Advertisements and publicity and library	13,000	11,335	1,665	87.2
12.	Office equipment (laptops, communication and others)	7,600	1,525	6,075	20.1
13.	Office partitions and furniture	12,000	25,475	-13,475	212.3
14.	Intangible fixed assets (soft wares)	4,000	3,253.9	746	81.3
15.	Maintenance of computers, software, network infrastructure	15,000	21773.3	-6,773	145.2
16.	Office Security (guarding) services.	3,600	2,724.4	876	75.7
17.	Fiber Internet connection with BSC Ltd & Liquid Telecom	12,700	14,502	-1,802	114.2
18.	Office space leasehold rent at Telecom and Queensland buildings	72,000	98,559	-26,559	136.9
19.	Postage and Courier services	3,600	240	3,360	6.7
20.	Subscriptions to journals, newspapers, magazines & periodicals	3,200	7,600	-4,400	237.5
21.	Fixed telephone, telex, and mobile phones & airtimes	6,000	950	5,050	15.8
22.	Develop and Maintain Servers, Record Management and Archiving System and Software	751	751	0	100.0
23.	Feasibility study for construction of EASTECO Headquarters	4,000	0	4,000	0.0

24.	Consultancy to Convene the Second EAC Science, Technology and Innovation Conference (Intangible Fixed Assets (i.e. Software).	24,500	24,500	0	100.0
25.	Maintenance of Online Journal System Platform Maintenance of Computer Software (i.e. Upgrades).	7,900	7,600	300	96.2
26.	Consultancy to Facilitate and Support the Editorial Committee of the EAJSTI (Journal) and the Registration of the Journal with two (2) indexing databases.	4,813	4,813	0	100.0
27.	Consultancy to Development and Maintenance of Conference/Online meetings management software application.	40,000	40,000	0	100.0
28.	Consultancy to conduct online training in entrepreneurship skills for graduate and post-graduate students, young graduates and innovators.	6,000	6,000	0	100.0
29.	Consultancy to Support adoption and application of EAC Research Agenda and Regional Collaborative Research Program in Partner States.	1,750	1,750	0	100.0
30.	Maintain the EAC online Platform for Young Innovators (Information sharing on IP issues and linkages with private sector and investors).	5,000	5,000	0	100.0
31.	Consultancy to Conduct training on manuscript and grand proposal development for faculty and postgraduates.	5,000	5,000	0	100.0
32.	Carry out, transfer and diffusion of technology solutions in processing, conservation and distribution of agricultural products for use by SMEs and farmers.	5,000	5,000	0	100.0
33.	Consultancy to develop the EAC Regional innovation Strategy.	11,000	11,000	0	100.0
34.	Consultancy to develop the EAC Regional Space policy.	15,000	15,000	0	100.0
35.	Consultancy to facilitate Establishment of Regional R&D Working Group to operationalize regional collaborative Research.	7,000	7,000	0	100.0
36.	Facilitate National and Regional Committees for the Identification and Support of Talented Youth in STI.	3,500	3,500	0	100.0
37.	Consultancy to Develop Online Platform on Innovation Capacity and adaptation and Transfer of Manufacturing and Industrial Technologies (CATMITs) in EAC Partner States.	5,000	5,000	0	100.0

38.	Consultancy to develop the East African regional innovation, technology transfer and commercialization strategy.	15,000	20,000	-5,000	133.3
39.	Consultancy for terminal evaluation of the first EASTECO strategic plan 2017-2021 and for development of the second EASTECO strategic plan 2022-27.	60,000	36,986.4	23,014	61.6
40.	Conduct online Capacity building for EAC Regional Centers of Excellence in Knowledge and Technology Adaptation, Transfer and diffusion in collaboration with National Industrial Research and Development Agencies.	9,000	9,000	0	100.0
41.	Consultancy services to customize the "floor" enterprise virtual conference platform.	13,500	13,500	0	100.0
42.	Supply, installation, training, testing & commissioning of software license for virtual conference platform for events.	25,000	25,000	0	100.0
	TOTAL	631,535	553,629		



JUMUIYA YA AFRIKA MASHARIKI

EASTECO Queen's Land House, 5th Floor,
KG 563 St, Kacyiru, KIGALI – RWANDA
Email: easteco@eachq.org
Tel: (+250)-788 310 402 | (+250)-788 165 200