The Ethiopian Academy of Sciences (EAS) adopted its first five-year Strategic Plan for the period 2011-2015 immediately after its official launching in April 2010. The Plan set the vision, mission, values and objectives of the Academy as an independent organization for promoting science, technology and innovation in their broadest sense. The Plan comprised of five core programs and their implementation strategies identified to help achieve the major objectives of the Academy. The Strategic Plan was implemented through annual activity plans by the five Working Groups and the Secretariat of the Academy under the leadership of the Board and close monitoring and support from the Executive Committee.

Evaluation of implementation of the first strategic Plan of the Academy revealed that the Academy registered a modest success in achieving its major milestones of increasing its visibility and relevance; building institutional capability and ensuring sustainability. The Second Strategic Plan of the Academy has, therefore, been prepared for the 2016 – 2020 period building on the capacities built in the past five years by critically analyzing the internal and external situations to identifying the strengths of the Academy and the prevailing and newly opening up opportunities as well as the potential challenges/risks.

This document presents brief background to the historical and organizational aspects of the Academy followed by its vision, mission, value statements and the strategic objectives. It also presents a summary of the analysis of the prevailing situation and the core programs of the Academy. The document concludes by setting the mechanisms for monitoring and evaluation of implementation of the strategic plan within its life span through active involvement of the major stakeholders.

The Academy believes that this document will serve as the basis for its activities to be carried out by the various organs in the next five years. It will also be used as a tool for engagement with stakeholders and partners to the advancement of sciences and promotion of science culture technology and innovation among the public with the ultimate goal of contributing to the national development and transformation.
1. Background

The Ethiopian Academy of Sciences (EAS) was established after a long gestation period and launched in April 2010. One of the first tasks it undertook was the formulation of a strategic plan. Its first Strategic Plan (2011-2015), apart from defining the vision, mission, values and objectives of EAS, set out the following five core programs:

1. Increasing and strengthening the visibility and relevance of EAS;
2. Providing consensus building platforms on critical national issues;
3. Promoting science, technology and innovation;
4. Recognizing excellence; and
5. Building the institutional capacity and sustainability of EAS.

EAS undertook two internal reviews of the implementation of the Strategic Plan, the first a mid-term review in March 2012 and the second a final review in October 2015. These meetings, attended by members of the EAS Board as well as chairpersons and secretaries of the five Working Groups, evaluated the successes registered and the shortfalls observed in the implementation of the Strategic Plan. The following is a summary of the major achievements and gaps in the process of that implementation.

1.1 Increasing and strengthening the visibility and relevance of EAS

EAS has managed to strengthen its secretariat and build up a modest team of professional staff. It has designed an appropriate logo and developed an interactive website. It has also been able to disseminate information about the Academy through its brochure and via courtesy calls by its Officers at government ministries and embassies. Through a continuous but careful recruitment drive, the number of its Fellows has risen from the initial 49 Founding Fellows to 106 Fellows, 34 Associate Fellows and one Honorary Fellow. It has developed strong relationship with sister academies (notably the US National Academy of Sciences and the Royal Society) and has become member of the Network of African Science Academies (NASAC) and the global Inter Academy Panel (IAP). It has established good working relationship with various government ministries, especially the Ministry of Science and Technology. It organized two Science Congresses – the first in December 2011 assessing the status of scientific study in Ethiopia and the second in November 2015 on the theme of “Re-Envisioning Higher Education and Research in Ethiopia”.
It also hosted the 9th Annual Meeting of African Science Academies (AMASA) in November 2013 on the theme of “Biotechnology for Africa's Development”. After conducting a series of Youth Science Forum meetings at various higher education institutions, it finally launched the Ethiopian Young Academy of Sciences (EtYAS) in November 2015.

The main challenge in this sphere has been the difficulty of attracting qualified professional staff. Power outages have also constituted a major constraint in carrying out routine activities, although this admittedly has been a generic national problem.

1.2 Providing consensus building platforms on critical national issues;

Two major areas of activity under this program were the commissioning of consensus and other studies and the holding of public lectures. In the first sphere, studies were conducted on the research landscape in the health sector, integration of nutrition and health, quality of primary education, the organizational structure and operational modalities of the National Research Council of Ethiopia, and assessing the demand and supply of human resources in science and technology. The public lectures started as individual initiatives by the working groups and have now culminated in a popular monthly lecture series organized by the EAS secretariat in consultation with the working groups.

A major challenge in this sphere is the lack of a clear delineation between commissioned studies and consensus studies as conducted by the established science academies.

1.3 Promoting science, technology and innovation

The major activity in this sphere has been the dissemination of the proceedings of the various conferences and workshops organized by EAS, from the Proceedings of the EAS launching conference in 2010 to the Report on Baseline Survey of Climate Change Research in Ethiopia in 2015. A number of the publications have been disseminated in
the form of policy briefs customized to policy-makers. These policy-oriented briefs include declarations emanating from the AMASA conference on biotechnology and the 2nd Science Congress on "Re-Envisioning Higher Education and Research in Ethiopia". Steps have also been taken to open at the EAS headquarters a Science Center, which is envisaged to transform the Academy into a hub of popular science education.

On the other hand, plans to popularize science through regular radio programs, including a "Meet the Scientist" program, have yet to materialize. Nor has EAS been able to implement the idea of a science journal which was intended to serve as its flag bearer.

1.4 Recognizing Excellence

This remains the area of least achievement. This arose partly from the fact that, in the first three years of its existence, the EAS has to be first recognized as a national institution before it can presume to give honors and awards. It was also partly due to the fact that EAS felt it had to discover its niche in a situation where there were many award-giving institutions.

1.5 Building the institutional capacity and sustainability of EAS

Two milestones in this sphere have been the acquisition of custodianship of a historic building to serve as its headquarters and its recognition as a national institution by an Act of Parliament in March 2013. The main building in its premises has now been restored and is ready for use while other buildings have served to house the secretariat and are being reconfigured to serve as a temporary Science Center. The recognition by an Act of Parliament has brought with it an annual government subvention which has represented a steady source of funding to cover expenditures.

While the above were very encouraging developments, challenges still remain in ensuring sustainable funding for EAS. Various resource mobilization schemes have been initiated but none have yet come to fruition. The task of regulating the powers and responsibilities of the Working Groups through bylaws also remains an agenda of the future.
The above summary shows that the implementation of the first Strategic Plan has been on the whole highly satisfactory. Yet, there still remain some persistent challenges. Serious efforts should be made to overcome these challenges in the next Strategic Plan period. EAS has managed to build a fruitful network of partners both at the regional and global levels. It has won the trust and confidence of the Government, which also expects a lot from it. It has to use its achievements so far as a springboard to consolidate its rightful position within the family of science academies and to contribute its share to national development.

2. Vision

To be a premium organization in the development of scientific culture in Ethiopia.

3. Mission

To foster scientific knowledge and innovation with a view to the attainment of the developmental and transformational aspirations of the people of Ethiopia.

4. Core Values

- Tolerance and respect for diversity
- Equity and impartiality
- High ethical standards and integrity
- Evidence-based decisions and recommendations
- Originality in scholarship
- Institutional autonomy

5. Strategic Objectives

**Strategic objective 1:**
- To transform EAS into a well-endowed and self-sustaining academy with high program impact;

**Strategic objective 2**
- To provide the expertise for undertaking consensus studies and policy-oriented consultations on critical national issues;

**Strategic objective 3**
- To foster public dialogue on issues of national significance;

**Strategic objective 4**
- To contribute towards the advancement and public awareness of science, technology and innovation;
**Strategic objective 5**

- To forge strong links and partnerships with kindred national, regional and international organizations.

### 6. Situational Analysis

This Strategic Plan is designed to assist EAS chart its core programs for the next five years. As this is the second five-year strategic plan, EAS made careful considerations of the achievements of the first five-year strategic plan period and the context in which EAS intends to work.

#### 6.1 Strengths/Opportunities

- Commitment of the Ethiopian Government to the development of science and technology;
- Recognition of the Academy as an autonomous evidence-based policy advisory body;
- Multi-disciplinary expertise and diversity of membership;
- Rich indigenous knowledge base;
- Large and potentially supportive Ethiopian Diaspora;
- Many professional associations and potential partner institutions;
- Goodwill of other academies and networks of academies;
- Support from Ministry of Science and Technology;
- Membership in the National Science, Technology and Innovation Council and National Science and Technology Research Council;
- Productive track record serving as a springboard;
- Large and supportive Ethiopian Diaspora;

#### 6.2 Challenges/Risks

- Inadequate participation of Fellows;
- Obtaining sustainable funding to implement EAS activities;
- Attracting highly qualified personnel for the Secretariat;
- Lack of commitment of some the working groups and fellows; and
- Insufficiency of institutional framework for the working groups and the standing committees

### 7. Core Programs

The Core Programs of the Academy are the major themes from which all the projects and activities of the Academy emanate. They include the following:

- **Core Program I:**
  *Building the institutional capacity and ensuring the vibrancy and sustainability of EAS*

- **Core Program II:**
Providing evidence-based advice

- **Core Program III:**
  Providing consensus-building platforms on critical national issues

- **Core Program IV:**
  Promoting Science, Technology and Innovation

- **Core Program V:**
  Fostering national, regional and international collaboration

## 8. Implementation Strategies

**Core Program I: Building the institutional capacity and ensuring the vibrancy and sustainability of EAS**

This core program will be focused on consolidating the institutional capabilities of the Academy built in previous years and ensuring dynamism, effectiveness and efficiency in discharging Academy responsibilities and implementing its strategic plan. Emphasis will be given to creating and maintaining a more suitable physical, infrastructural, policy and psychological work environment that can attract and maintain qualified and experienced staff required for growth and intensity of Academy activities. Special attention will be paid to enhancing capacities of the Academy for public relations and communications, publishing, initiating and conducting consensus studies, preparing winning program/project proposals, and creating income generating activities and/or establishments.

**Strategies:**

1. Building the institutional capacity of EAS by endowing the Secretariat with well-qualified and competent professionals as well as adequate infrastructural, financial and material resources;

2. Mobilizing financial resources to ensure the sustainability of EAS and the realization of its Strategic Objectives;

3. Defining the statutory position and functions of the Working Groups and enhancing their productivity;

4. Defining the statutory position and functions of the Standing Committees of the Board and ensuring their effective operation;

5. Reinvigorating the membership drive while ensuring gender and discipline balance;

6. Building an effective system of communication between the Secretariat, Working Groups, Fellows, and stakeholders;

7. Fostering the visibility, positive image and prestige of the Academy.
Core Program 2: Providing evidence-based advice

The fact that membership of the Academy comprises high level qualified and experienced Fellows and Associate Fellows together with its independence recognized as an autonomous legal entity by an act of parliament gives EAS a unique position for evidence-based policy advice through well planned and conducted consensus studies. Efforts will be made to fully understand the growth and transformation road map of the country as depicted by the Second Growth and Transformation Plan (GTP-2) and to contribute towards advancing scientific research, education and innovation for the benefit of achieving the set national growth objectives. The Academy's policy advice will be based on a thorough analysis of the existing situation, identification of alternative paths to bring about the desired change and systematic projection of trends on selected socioeconomic development parameters.

Strategies:

1. Conducting consensus studies;
2. Promoting a culture of research, knowledge management and scholarship;
3. Providing well-considered expert opinion on critical issues as the need arises;
4. Promoting and supporting research on national and EAS set priorities.

Core Program III: Providing consensus-building platforms on critical national issues

EAS has the advantage of high convening power by the virtue of being composed of members from all disciplines of sciences and extensive experiences in the wide spectrum of socio-economic and cultural sectors. This program will, therefore, focus on formulating and conducting platforms aimed at increasing public awareness; brainstorming on issues of national concern such technology transfer, manufacturing capability building, energy, climate change, education, research and innovation. For a will also be organized to impart best practices of national, regional and international organizations and countries in achieving sustainable growth and socioeconomic transformation. Efforts will be made to exhaustively use the intellectual resources available both within and outside the Academy to organize successful discussion platforms.

Strategies:

1. Promoting public dialogue through workshops, symposia, conferences and other platforms;
2. Organizing public lectures and round table discussions on topical issues;
3. Utilizing the media for dissemination of informed views on critical issues through deployment of EAS Fellows;

**Core Program IV: Promoting Science, Technology and Innovation**

The Academy believes that socioeconomic development and transformation of the country can benefit from a sound scientific and technological basis and an innovative culture. Hence, it goes without saying that the Ethiopian society as a whole must be enabled to take steps towards creating, mastering and utilizing the resources of science, technology and innovation for developmental purposes. EAS will accordingly make its contribution to the promotion of science, technology and innovation through advocacy using various means. EAS also intends to establish a tradition of honouring exceptional achievers by instituting a scheme for regular awards in the various fields of science. The Academy is convinced that these awards must be sustainable to achieve the desired maximum impact of recognizing excellence in the country. Consequently, each of the awards will be well defined to cover priority areas of Academy/national concerns.

**Strategies:**

1. Disseminating research-based information through print and electronic media;

2. Recognizing excellence in science, technology and innovation;

3. Striving for the improvement of the quality of science education in Ethiopia;

4. Popularizing science by establishing a science center, organizing exhibitions and engaging the media;

5. Enabling EAS to access global science and technology and facilitate innovation and technology transfer.

**Core Program V: Fostering national, regional and international collaboration**

EAS plans to enhance its engagement with regional and international organizations pursuing similar objectives. The purpose of the relations at this level is primarily to facilitate access of Ethiopian scholars to the international scientific and technological knowledge and research and innovation opportunities at the same time enabling them to contribute their expertise to the various regional and international scientific and technological endeavors. EAS will, therefore strengthen its links with the Network of African Science Academies (NASAC) and the Inter-Academy Panel (IAP). It will also strengthen partnerships with national academies in Africa, North America, Europe and Asia. The Academy will also exert more efforts to strengthen its relations with bilateral organizations. Ways of partnering with the financial institutions and the private sector will also be explored.

**Strategies:**

1. Enhancing its networking function by fostering collaboration with government ministries, the private sector, national education and research institutions and professional associations.
2. Collaborating with sister academies, professional associations, think tanks, regional and international organizations;

3. Working towards strengthening the networking with the two major organizations: The Network of African Science Academies (NASAC) and African Academy of Science (AAS);

4. Redoubling the effort to engage the Ethiopian Diaspora.

9. Monitoring and Evaluation

EAS will monitor and evaluate its performance against annual work plans and budgets approved by the Governing Board. Progress towards set targets will be monitored monthly, quarterly and semiannually by the EAS Secretariat. Performance in work plan implementation is monitored periodically and evaluated by the Governing Board annually. The EAS programs, linkages and partnerships, and its governance and management systems will also be evaluated by an independent body at the end of the Strategic Plan period.

EAS will ensure that annual activity work plans include performance monitoring and evaluation plans designed to collect, monitor, and evaluate program performance against set targets by using selected indicators. Budgetary provisions shall be made in the annual work plans to facilitate M&E processes, including reporting.

The M&E processes will be participatory in nature involving the Governing Board, staff, EAS working groups and stakeholders engaged in the EAS programs. The involvement of the aforementioned key actors in program design, implementation, actual monitoring and evaluation will be critical in improving quality of service provided by EAS and in addressing local development needs. While undertaking its M&E, EAS will strive to increase the sense of national and local ownership of its programmatic activities and ultimately ensure more measurable and sustainable impact. The Secretariat of the Academy will also develop and implement an appropriate management Information system that enables to track the progress of its programs, projects and activities. Quarterly, semiannual and annual performance reports and an annual audited financial report will be regularly submitted to the Government via the Ministry of Science and Technology to increase transparency on its effectiveness, efficiency and accountability.