Strategic Plan

(2011-2015)
The NASAC Secretariat

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Strategic Plan 2011-2015
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# Contents

1 - Introduction 3  
1.1 Background ................................................................. 1  
1.2 Governance ................................................................. 3  
1.3 AAS and NASAC roles .................................................. 3  
1.4 Experience from the NASAC Strategic Action Agenda 2008-2010 .... 4  
1.5 Priorities and timelines ................................................... 8  
1.6 NASAC’S Philosophy ..................................................... 8  
  1.6.1 Vision ........................................................................... 8  
  1.6.2 Mission ......................................................................... 8  
  1.6.3 Goals: ........................................................................... 8  
  1.6.4 Core Values ............................................................... 8  
  1.6.5 Objectives .................................................................... 8  
1.7 Relevance ...................................................................... 9  
2 - Strategic Issues and Objectives ........................................... 11  
  2.1 Planning for the Future ................................................... 11  
  2.2 Strategic Issues ............................................................ 11  
3 - NASAC Action Plan 2011-2015 ......................................... 15  
  Strategic Issue 1: Advisory Role on Research and Development .......... 15  
  Strategic Issue 2: Increased Membership .................................... 15  
  Strategic Issue 3: Enhanced visibility ....................................... 17  
  Strategic Issue 4: Capacity building ........................................ 17  
  Strategic Issue 5: Science Advocacy and Public Policy ...................... 18  
  Strategic Issue 6: Financial Sustainability ..................................... 19
1 - Introduction

1.1  Background

On 13 December 2001, at the initiative of the African Academy of Sciences (AAS) with financial support from the IAP-regional network of science academies, the Network of African Science Academies (NASAC) was established. In 2008, NASAC formulated its first ever Strategic Action Agenda for the period 2008 to 2010. This new Strategic Plan, running for the period 2011-2015, is the second strategic document of NASAC and serves as a continuation of the Strategic Action Agenda. For this reason, it is based on the foundations already established on that Agenda.

As at 2011, the membership of NASAC consisted of 17 members comprising of the following science academies in Africa:

i. African Academy of Sciences
ii. Cameroon Academy of Sciences
iii. Ghana Academy of Arts and Sciences
iv. Kenya National Academy of Sciences
vi. The Nigerian Academy of Science
vii. Academie des Sciences et Techniques du Senegal
viii. Uganda National Academy of Sciences
ix. Academy of Science of South Africa
x. Tanzania Academy of Sciences
xi. Zambia Academy of Sciences
xii. Zimbabwe Academy of Sciences
xiii. Sudan National Academy of Sciences
xiv. Hassan II Academy of Science and Technology, Morocco.
xv. Academy of Sciences of Mozambique
xvi. Mauritius Academy of Science and Technology
xvii. Ethiopian Academy of Sciences

At the inception of NASAC, the founding nine academies identified the need to network and coordinate their activities. Noting that each operated as independent
and autonomous units, it became evident that collective effort and collective responsibility was necessary if science was to significantly impact on the economic, social and cultural development of Africa. The sum total of the individual units birthed NASAC with an overarching aim of making the voice of science heard by policy- and decision-makers worldwide, while supporting each member-academy to become the science-advisor to their respective national governments.

Through the years, intra-network support for the science academies was strengthened through joint activities and initiatives. The value-addition that inter-network linkages would bring also became important for NASAC. The aspiration to link with other networks of science academies and individual academies globally was also fostered and in 2011, NASAC was granted affiliate status by the IAP. On mutually beneficial initiatives, by 2011, NASAC had successfully forged strategic partnerships with several individual science academies from outside Africa. These include the US National Academy of Sciences, the Royal Netherlands Academy of Arts and Sciences, the Royal Society, and the German Academy-Leopoldina. EASAC-the European Academies Science Advisory Council became the first partner network of science academies for NASAC in 2011.

For the period 2008 to 2010, NASAC secured substantive support from the Royal Dutch Ministry of Foreign Affairs to implement five action items on its Strategic Action Agenda. The remaining action five items were supported through grants from the IAP-the global network of academies, the ASADI programme through US National Academies of Science, the Pfizer Programme through the Royal Society and NASAC-KNAW cooperation through the Royal Netherlands Academy of Sciences. The in-kind members’ contributions through dedicating staff and officials’ time, provision of logistical support and local hospitality for workshops and during other NASAC events immensely supplemented the financial support received.

It is hoped that in the course of implementing this Strategic Plan, new partnerships and linkages will be established, while existing ones are sustained to the existent that is possible or feasible.
1.2 Governance

The governance structure has been constituted: (i) in accordance with NASAC decision-making mechanisms as provided for in its Constitution and Rules of Procedure; (ii) to ensure that all substantive decisions are made within the framework of NASAC; and (iii) to permit AAS as the host academy during the period 2011-2015, to discharge its formal responsibilities as the legal custodian of NASAC.

NASAC’s Governance structure comprises of the following organs:

- The General Assembly as the highest decision-making body of NASAC with final authority to exercise all executive powers. The General Assembly consists of the Presidents from all member-academies present at any one given time.
- The NASAC Board is the executive arm of NASAC in charge of the overall implementation of the Strategic Plan and takes all decisions of principle and/or policy.
- To assist and advise the NASAC Board, standing and ad hoc committees are appointed (by the Board) on ad hoc basis to ensure that policy decisions and actions are based on merit-based expert knowledge.
- The NASAC Secretariat, which is the operational arm of NASAC, forms the coordinating link between member-academies secretariats and the governing organs. The secretariat facilitates the implementation of network activities through the guidance of the NASAC Board and is hosted by a member of the NASAC. During the period of the current Strategic Plan, the NASAC secretariat is hosted by the AAS.

1.3 AAS and NASAC roles

AAS is an honorific and programmatic organization whose membership comprises of individual scientists, who become fellows through a peer review process. NASAC on the other hand, only accepts corporate membership of science academies and serves as their umbrella organization.
It is therefore possible for scientists who are members of national science academies to also be admitted as fellows by the AAS. The synergy in scope of operations and activities of both AAS and NASAC will be enhanced so that their comparative advantages are explored for the benefit of the continent.

For the period 2011-2015, the AAS will continue to function as NASAC’s host Academy and, for that reason, provide the legal basis for NASAC to enter into contracts/agreements or to employ staff. This implies that in all formal matters the AAS acts as NASAC’s legal custodian, while in matters of policy or content NASAC remains autonomous, governed by its own organs – in which AAS is a member Academy. The two organizations have developed memoranda to guide the hosting arrangement; and to determine the strategic collaboration in activities of mutual benefit.

1.4 Experience from the NASAC Strategic Action Agenda 2008-2010

In the Strategic Action Agenda, NASAC set for itself ten action items to pursue. While these were collectively achieved to a large extent, there were a few action items that were not achieved. These are briefly described below.

i.  Help create new academies and support existing members with developing strategic plans and concrete work plans. Through awareness creation workshops, scientists were inspired to create science academies in countries where none existed. Lead academies were mentored and a guideline on establishing and strengthening academies was developed. The follow-up on the development of academy strategic/work plans was however limited beyond the African Science Academies Development Initiative funded through US National Academies of Science.

ii. Organize for member Academies a series of workshops on best practices for merit-based science Academies. This action item was fully undertaken with distinct focus on imparting professional and technical skills to member-academies secretariat staff.
iii. Develop, and share with member Academies, expertise on funding opportunities for research in Africa. Funding expertise and opportunities from non-African sources were shared among member academies in a general sense, but not with the specificity of securing European Union funding as was implied in this action item.

iv. Request a study on re-vitalizing African universities and research institutions in national innovation systems from the InterAcademy Council (IAC). This action item was not realized because it was exclusively dependent on the IAC generating the funding for the study. NASAC only served as a requesting organization and sought expressions of support for the study from African Union and the Association of African Universities.

v. Develop a website to inform the general public of NASAC and its activities and to facilitate information exchange among NASAC member Academies. This action item was realized. The NASAC website is fully operational with detailed and relevant information for its members and stakeholders.

vi. Stimulate scientific networking and research collaboration between African and non-African scientists. This action item was realized by organizing conferences that brought together African and European scientists. Specifically, the NASAC collaboration with the European Science Foundation and the Royal Netherlands Academy of Arts and Sciences facilitated its fulfilment.

vii. Support member Academies with undertaking a fore-sighting exercise designed to a set research priorities at the national level. This was not realized because NASAC did not have or develop the technical skills or the conceptual appreciation for fore-sighting within its membership. Determining research agenda and priorities was however still done using alternative means.

viii. Continue to organize scientific conferences and ministerial roundtables on topics crucial to Africa. This action item was realized and closely linked to action item vi.

ix. Position NASAC as an attractive partner in matters of Africa-wide policy making and collaboration. This action item was also realized.
with several partnerships forged with international organizations. Within Africa, formal link was established with NEPAD while that with the African Union is still being pursued.

x. **Support initiatives to develop concrete plans and proposals for the creation of national science foundations.** This action item was not achieved. No concrete plans or proposals were developed and thus no specific initiative(s) were undertaken to create any national science foundation by NASAC or its members.

During the period of this Strategic Plan, NASAC will continue to pursue and build on the action items that were successfully realized. Being the first set of written NASAC priorities, the lessons learnt were valuable in allowing NASAC to appreciate its capacity to implement the action items.

The action items also helped determine the relational link between NASAC and the member academies. For those action items that were realized, the translation between national-academy and regional-network priorities (and vice-versa) were in sync and flowed seamlessly. It is this relationship that guaranteed that the voice of science was heard by decision-makers, and that valuable experiences were shared to benefit the continent. Of significant importance is the fact that during this period, NASAC facilitated the establishment of new science academies in three countries (i.e. Mauritius, Mozambique, and Ethiopia).
1.5 Priorities and timelines

In the Strategic Action Agenda 2008-2010, the comparative advantage of NASAC was determined to be at the regional and sub-regional levels. After all, NASAC is a regional network aspiring to be the voice of science and scientists in the continent. NASAC can undertake regional activities and influence regional policy more effectively than its individual members separately. In setting its priorities and timelines, two criteria shall be considered:

i. Actions that can be done through the motivation of members; and

ii. Actions that can only be done if financial resources are available.

Actions that only require the commitment and motivation of NASAC members, will among other things include the following:

- Building confidence between the academies and policy makers;
- Sharing of experiences among and outside its members;
- Lobbying to influence policy through “champions”;
- Lobbying for support from regional and international organisations (e.g. through “friends of NASAC”)
- Initiating formal linkages with key African institutions such as the African Union, United Nations Economic Commission for Africa, NEPAD, African Development Bank etc.

Actions that require financial resources to be available include:

- Drafting policy advice or instruments (statements, studies etc);
- Training workshops for staff;
- Capacity building for member-academies;
- Scientific conferences and roundtables;
- Publications (including website management);
- Ministerial roundtable meetings; and
- Basic NASAC Secretariat functions.
1.6 NASAC’S Philosophy

1.6.1 Vision
NASAC sees a future Africa that has developed a culture of science and scholarship and where all societies and individuals are able to attain their full potential in a sustainable way.

1.6.2 Mission
NASAC aspires to make science Academies in Africa vehicles for positive change for African societies: to make science contribute to Africa’s full potential and sustainable development.

1.6.3 Goals:
   i. Enable and connect African science academies to contribute to science, technology and innovation.
   ii. Make the voice of science heard by African and global decision and policy makers.
   iii. Establish a culture of science in Africa.

1.6.4 Core Values
The values that inspire NASAC and guide all of its operations and procedures include, among others: Institutional Independence, Relevance, Equity, Integrity and Respect for Diversity.

1.6.5 Objectives
NASAC is an independent organisation that serves to unite and strengthen African academies to address challenges on the African continent using scientific knowledge and expertise. More specifically, NASAC’s objectives are to:
   i. Promote cooperation between academies in Africa.
   ii. Provide advice to governments and regional organisations on scientific aspects of issues of importance to Africa’s development.
iii. Assist in building the capacities of academies in Africa to improve their role as independent science advisors to governments and to strengthen their national, regional and international functions.

iv. Assist scientific communities in Africa to set up national independent academies or associations of scientists where such bodies do not exist.

v. Provide a platform for the exchange and sharing of scientific ideas and experiences.

vi. Promote excellence in science and contribute to a culture of science in Africa.

1.7 Relevance

NASAC’s membership is drawn from Science Academies in Africa that are merit-based, independent, non-governmental, non-political and non-profit scientific organizations. NASAC is therefore only as strong as its members and would not be effective if it did not:

i. Facilitate the formation of science Academies in countries where none exists through financial or technical support.

ii. Offer Science Academies a platform for interaction and collaboration and with their counterparts’ worldwide.

iii. Link scientists and enhances their voice through their national academies.

iv. Strengthen existing academies through provision of capacity building/enhancement grants.

v. Enhances the operations of academies through provision of trainings to officials and staff members of their secretariats.

vi. Champion or facilitate the networking of academies to harnessing their collective strengths and to enhance their impact at a continental level.

While aspiring to remain globally relevant and effectively responding to change, NASAC will continue to provide:

i. Credible information and advice to decision and policy makers through serving as an archiving body with readily available information for different stakeholders.
ii. Merit-based advice on science curricula for science development.

iii. Science advice on economic, social, cultural and technical development for Africa.

iv. A voice for science to be heard through acquiring and synthesizing the best information from the academies and making it available to other stakeholders.

v. A platform for sharing of information between scientists, scientific institutions and also between countries in Africa and world.
2 - Strategic Issues and Objectives

2.1 Planning for the Future

Having existed for 10 years and following the execution of a strategic set of activities as contained in its Strategic Action Agenda (2008-2010), NASAC set out to draw up a plan for the period 2011-2015. The process began with charging NASAC’s Expert Group to examine what should be the network’s strategic direction over the next five years. The Group’s report was presented to the General Assembly of NASAC and a committee was formed to further consider this report and ensure a draft of a new strategic plan.

An expanded meeting of the Strategic Planning Committee was held in Nairobi in February 2011. In addition to members of the Committee, members of the Expert Group were present as well as representatives of some member academies. Following the session, a draft strategic plan was circulated among stakeholders electronically. A final Plan was prepared taking into consideration the comments of the stakeholders.

In all, several issues were considered to be crucial and should be tackled in the next five years if NASAC is to fulfil its mandate. The strategic issues decided upon are described below.

2.2 Strategic Issues

The following are the main issues agreed upon by the stakeholders that NASAC would need to address in the next five years in order to ensure that it is better positioned to fulfil its mission.

1.1.1 Advisory Role

NASAC will serve as an independent platform that can evaluate the evidence in relation to key challenges on the continent and make recommendations regarding addressing these challenges aimed at solving key challenges on the continent.
1.1.2 **Increased Membership**

Ensure that NASAC grows as an institution by strengthening its membership. As a network, NASAC is only as strong as its constituent organisations (academies). It therefore important to ensure that NASAC grows numerically: (i) by admitting new academies to its membership and, (ii) by facilitating the creation of national academies in countries where none exist, if this is possible. Additionally, it is important that attention is given to strengthening existing member national academies.

1.1.3 **Enhanced Visibility**

Enhance the visibility of NASAC through utilising modern media to effectively communicate its considered operations. NASAC aims to use available media including social networking sites (as applicable) to communicate with the stakeholders on the continent. There is need to also ensure that NASAC operates a modern interactive website which can be used to communicate with its members and key stakeholders.

1.1.4 **Capacity Building**

Strengthen member academies and develop their advisory capacity. Since its strength is the sum of the individual strengths of the member academies, it is imperative that NASAC be concerned with building the capacity of its members. In doing this, it is important to encourage the representation of women in the membership of African academies and young scientists to participate in activities of the academies.

1.1.5 **Science Advocacy and Public Policy**

NASAC needs to present a unified voice for policy development in science, technology and innovation. NASAC needs to tap its rich potential of member academies which have highly distinguished African scientists as members and also have access to top scientists globally in
order to enhance scientific activity and influence policy development in Africa.

1.1.6 Financial Sustainability

Ensure NASAC’s continued and independent existence as an institution. NASAC will need to identify as well as ensure clear and precise sources of funding over the next five years and beyond. While a starting point for ensuring a steady income flow for NASAC may be to create the avenues for receiving subscription fees and donations from member academies, these will not be sufficient to fund its activities. Hence, the need to identify and engage effectively with funding bodies globally.

Strategic Issue 1: Advisory Role on Research and Development Initiatives

NASAC can serve as an independent organization for providing advice regarding solving key challenges on the continent. These are to be shared with relevant stakeholders. The goal is to ensure relevance, innovation and impact of African science on African development through the recommendation of its academies.

The objectives are to use science, technology and innovation to address priority and thematic issues in Africa. To achieve these, NASAC will:

1.1.1 Set up and coordinate the activities of expert panels to address specific thematic issues. Thematic areas may include energy, water, climate change and biodiversity, sustainable livelihoods, health, as well as biosafety and biosecurity.

1.1.2 Organise annual conferences of African academies. NASAC will bring together these academies to confer on themes of regional significance and suggest ways forward for the continent.

1.1.3 Set up a useful database of academy members by merging the updated databases of member academies.

1.1.4 Create links on its website from member academies thereby fostering collaboration among these academies.

1.1.5 Through NASAC member academies, organise regular science, technology, and innovation exhibitions and colloquia to showcase knowledge and skills available on the continent.

Strategic Issue 2: Increased Membership

NASAC aims to grow significantly over the next five years as a regional institution with influence on the development of Africa using STI. However, since NASAC is only as strong as its members, there is a need to facilitate the establishment of
new national academies and to strengthen existing ones. Ways by which NASAC will do this include:

3.2.1 Engaging scientists in the countries with a potential for starting academies to sensitise them about the roles of academies. This will be done by disseminating guidelines for starting academies to such countries and by holding awareness workshops for these scientists.

3.2.2 Facilitating the establishment of science associations as an intermediate step towards the establishment of national science academies in countries where this may not be immediately possible. (Guidelines will be developed.)
Strategic Issue 3: Enhanced visibility

The main aim of NASAC is to ensure improved visibility of science in Africa. Among other things, modern social media will be used to showcase NASAC as well as keep members abreast of new trends in research and activities of NASAC member academies. In this regard, the activities are to:

1.1.1 Develop and implement a communication strategy which, apart from the use of the NASAC website, entails the use of social media (such as Facebook, Twitter and YouTube)
1.1.2 Update the NASAC website to become more interactive and efficient.
1.1.3 Link the NASAC website with member academies and other stakeholders’ websites.
1.1.4 Develop a quarterly electronic newsletter for NASAC for distribution to member academies and other STI stakeholders.
1.1.5 Organise training workshop(s) for staff of member academies on the importance of effective communication.
1.1.6 Establishing linkages with organizations/Networks with similar objectives (suggest a workshop for SARUA, ANSTI, AAU to align their similar objectives with NASAC)
1.1.7 Establish regional prizes and awards. This will celebrate scientific achievement among African scientists and will help inspire the development of STI on the continent

Strategic Issue 4: Capacity building

NASAC aims to strengthen member academies and develop their capacities as advisers to their governments. In particular, strengthening the NASAC secretariat as well as those member academies will be a priority. In addition, NASAC will work with member academies to promote the participation of women and young scientists in the activities of academies. In the pursuit of this, NASAC will:

3.4.1 Organise regular training workshops for secretariat staff of African
academies thereby enhancing to capacities to play their advisory roles

3.4.2 Work with appropriate organisations which aim to promote the participation of women in science.

3.4.3 Issue position paper(s) on the need to ensure that young scientists are included in the activities of national academies thereby inspiring the next generation of scientists.

3.4.4 Develop a concept for the establishment of a Young Academy (i.e. an academy for young scientists as it has been established in some countries of Europe).

3.4.5 Providing capacity-building grants to member academies that can be used for the provision of infrastructure and or equipment.

3.4.6 Collaborate with other affiliate networks of the IAP e.g. European Academies Science Advisory Council (EASAC).

**Strategic Issue 5: Science Advocacy and Public Policy**

The goal is to ensure that NASAC represents a unified recognized voice for African academies in science, technology and innovation.

Specifically, NASAC will provide; a platform for tackling scientific issues in Africa; policy advice to society as well as decision and policy makers; an umbrella body for African science in international forums on science, technology and innovation. Activities will include:

1.1.1 Organise workshops on topical issues, by exploiting expertise from across the continent.

1.1.2 Establish online discussion forums on topical issues to which both scientists and decisions makers contribute.

1.1.3 Develop and disseminate regular joint policy statements/briefs which can be used as advocacy tools for regional issues.

1.1.4 Engage prominent African scientists (such as Nobel Laureates) and other individuals as ambassadors of NASAC. These are to use their individual stature to promote the NASAC mandate.
Strategic Issue 6: Financial Sustainability

In addressing the issue of sustainability, the main goal is to ensure NASAC’s continued and independent existence as an institution, with the assurance of member contribution (whether in-kind or financial). Like any other institution, there is a need for assured income to support requisite activities. Specifically, there is a need to identify clear sources of funding and secure sufficient funding from same. Activities needed to achieve this include:

3.6.1 Establish an Advisory body for NASAC consisting of prominent Africans (from outside the scientific community e.g. former Presidents, bankers, business people).

1.1.2 The establishment of a resource mobilization committee that will plan and oversee the fundraising activities of NASAC. The committee, along with secretariat, will work to identify potential funders and develop appropriate project proposals for submission to them.

1.1.3 The design and production of publicity materials for dissemination to stakeholders and funders.

1.1.4 Organising roundtables for potential funders and development organisations to introduce them to NASAC and its strategic role on the continent. The roundtables will serve to highlight areas of mutual interest and collaboration between these agencies and NASAC.

1.1.5 Seek endowments and grants from regional institutions (like the African Union, NEPAD etc) and from national governments.