



Knowledge is the common heritage of Mankind

العلم إرث البشرية

Sudanese National Academy of Sciences  
(SNAS)

[www.snas.org.sd](http://www.snas.org.sd)

**"How can national academies  
best contribute to science  
advice for policy?"**

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# Network of African Science Academies (NASAC)

Established in December 2001, in Nairobi, Kenya, under the African Academy of Sciences (AAS) & Inter Academy Panel (IAP).

Founding members were:

1. African Academy of Sciences (AAS)
2. Cameroon Academy of Sciences (CAS)
3. Ghana Academy of Arts & Sciences (GAAS).
4. Kenya National Academy of Sciences (KNAS)
5. Madagascar National Academy of Arts, Letters and Sciences (AcNALS)
6. Nigerian Academy of Science (NAS)
7. Academie Nationale des Sciences et Techniques du Senegal (ANSTS)
8. Uganda National Academy of Sciences (UNAS)
9. Academy of Science of South Africa (ASSAf)

Currently, NASAC has 21 Academies with the following 12 as additional members:

10. Tanzania Academy of Sciences (TAAS)
11. Zambia Academy of Sciences (ZaAS)
12. Zimbabwe Academy of Sciences (ZAS)
13. Sudanese National Academy of Sciences (SNAS)
14. Hassan II Academy of Science and Technology Morocco
15. Academy of Sciences of Mozambique (ASM)
16. Mauritius Academy of Science and Technology (MAST)
17. Ethiopian Academy of Sciences (EAS)
18. Academie Nationale des Sciences, Arts et Letters du Benin (ANSALB)
19. Togolese Academy of Sciences, Arts and Letters (ANSALT)
20. Académie Nationale des Sciences du Burkina (ANSB)
21. Académie Nationale des Sciences et Technologies du Congo (ANSTC)

# Government recognition

When existing, national academies can :

- Provide evidence-based scientific advice on issues of public interest to government and other stakeholders
- Recognize scientific achievements of the scientists, develop academic skills and uphold innovative academic thinking.
- Carry regular interaction and knowledge exchange with other science academies through government links
- Become a realistic, expert and respected authority in representing the national interests of the sciences to policy and decision-makers, private sector, science community and the general public.

# Examples of government recognized academies in Africa:

- Academy of Science of South Africa (ASSAf)
- Ghana Academy of Arts & Sciences (GAAS)
- Hassan II Academy of Science & Technology, Morocco
- Others

## Government recognition is low or lacking:

National academies do not stand out as the most accepted voice to policy makers in science issues.

### Example:

Sudanese National Academy of Sciences (SNAS) :

- Established in 2005 as a registered NGO
- Lead the formation of the Sudanese Academy of Young Scientists (SAYS) in 2007
- Support the Sudanese Women in Science Organization (SWSO) 2011.

# Main objectives of SNAS

- Promote research and uphold the cause of science in its basic and applied forms.
- Offer advice and consultation to institutions, the public and the private sectors in relation to science and technology, research and education.
- Benefit from a very solid heritage in education and science in the country.



# Scientific Research in Sudan

Started in 1902 with British colonial era

- Medical Research: addressed human diseases
- Agriculture & Animal Resources: increased the natural wealth
- Engineering & Irrigation: developed the Sudan Railways system for transportation and the irrigation scheme for cotton cultivation.

# After Independence 1956

- University of Khartoum was established
- Expansion in research activities:
  - Medical & health research
  - Agriculture
  - Veterinary
  - Engineering

# National Council for Research

Established (1970) by a presidential decree

As an advisory body:

- To promote the scientific research for economic development within the framework of state policy.
- To formulate the comprehensive policy for scientific research and suggest the required plans.
- Was under the Cabinet of Ministers, with the President as Head

# Specialized Councils under the NCR

- Agricultural Research Council
- Economic & Social Research Council
- Medical Research Council
- Science & Technology Research Council

## In 1991:

- National Council for Research was demoted and restructured to become the National Centre for Research, under Ministry of Higher Education and Scientific Research,
- All the specialized councils were dissolved.
- Several specialized research institutes were developed.
- The Centre became a research body to conduct scientific and applied research for economic and social development in the Sudan.

# Ministry of Science & Technology (MOST)

- Established in 2001 & operated from the NCR
- Functions & funding were scarce & tied up with the ministerial policies
- MOST coupled with Min. of Telecommunications in 2012 (reduce expenses)
- In 2015, what remained of NCR was attached to Ministry of Higher Education where...

- Funding of scientific research affected by the political sanctions on the country.
- Restrictions on hard currency transfer through banks
- Scarce funding comes through international agencies & donors, UN and NGOs
- Institutions lack facilities, training & long term coordinated research projects
- Many universities were established (the higher education revolution since 1992) resulting in very frail infra-structure for many of the new institutions

# Commissioned by UNESCO

Sudan Science, Technology and Innovation Policy for 2014 - 2021 was developed & mainly recommended:

- Establish a Higher Council for Science & Technology under the direct supervision of the Presidency.
- Increase government expenditure for science & technology to 1% of the GDP by the year 2021.
- Secure special funds for scientific research.
- Founding an observatory to collect data & statistics, to produce the S&T Indicators.



Ministry of Higher Education & Research  
became the responsible body to implement  
the Sudan Science Technology and Innovation  
Policy

- Established a National Council for Scientific Research.
- Seeking resources to build up a National Fund for Research.
- Will also set-up an observatory for STI Statistics and Indicators

# Current barriers:

- Extensive immigration/brain drain of academicians & researchers during the past 2 decades.
- Infra-structure & capacity of institutions to conduct research is frail.
- External funding from donors very much restricted by international sanctions e.g. money transfer, purchase of equipment & reagents
- Skills development & training of researchers outside the country is very limited
- Ministry of Higher Education is over-loaded with the extensive under-graduate training needs of the new institutions.

# SNAS achievements:

- Have a wide expertise in members
- Efforts to include leading scientists in diaspora
- Public lectures, publications and workshops addressing national issues e.g.
  - Science education
  - Water pollution,
  - Artisanal mining,
  - Electronic waste

## What can SNAS contribute to science advice for policy

- Communicate with Sudanese researchers in diasporas for participating in the process of STI in the Sudan
- Facilitate for external funding of research projects, training & skills development of researchers
- Build-up data-base/ bibliography of Sudanese scientific literature & publications
- Guide, advise & supervise the process of science education & prioritization of scientific research projects to address issues for sustainable development
- Communicate & reach different communities locally

# How can SNAS achieve its goals ?

- Internationally, SNAS is recognized as a representative body for Sudan science community
- SNAS members & many expatriate Sudanese are among top world scientists in many fields
- Young researchers, both in-country & outside, are keen to build a strong scientific community in Sudan
- Confidence building among researchers about the scientific opportunities available in the country.

- Build a database of Sudanese scientists, in country & abroad,
- Increase public presentations, simple publications in media to address national issues and educate communities
- Encourage & mentor young researchers to actively participate in different projects
- Sudan has more than 60% females in higher education institutions. Plans for their involvement in research should be addressed.

## What SNAS needs to achieve its goals :

- Local infra-structure & funding to function
- A strong secretariat-base office
- Support & recognition of the international agencies in Sudan e.g. EU, UN agencies, regional agencies & international NGOs., etc...
- Host scientific conferences & invite reputed scientists from other academies to visit Sudan and address the research communities at the academic institutions

Thank you