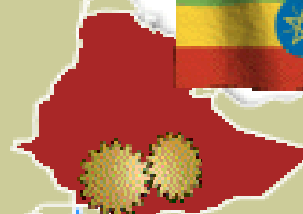




United Nations Educational,
Scientific and Cultural Organization



S&T policy structure of Ethiopia



Kenya, Mombassa

Kenya, Mombassa

April 1, 2009

Background



- **Ethiopia** is a Land Lock country situated in the Horn of Africa.
- A Federal Government structure which consists Nine Regions and Two chartered cities.
- It is the second populous nation in Africa next to Nigeria (about 78 million population).

Background...



- Over 80 nationalities and Languages.
 - Diverse culture and religion such as Christian, Muslims etc.
 - **GDP: \$19.43 Billion (2007 Est.) , Gross national income per capita 220 dollars.**
- GDP - real growth rate about 10% for the last four years.**

Establishment of S&T Governing body



- The Ethiopian Science and Technology commission was established in December 1975.
- Following the change in government in 1991, the Commission was re-established in March 1994.
- The commission went into its 3rd phase of re-institution on the in 1995 following the establishment of Federal Democratic Republic of Ethiopia as an Agency.
- At present it established as STI Ministry in Oct. 2008.

S&T POLICY FORMULATION PROCESS



It is :

- A capacity building process
- Build ownership and commitment
- should address local needs and common goals;
- should consider a transversal, multisectorial, multidisciplinary process
 - **Networking, partnership and capacity to implement the policy.**

Policy making process in Ethiopia



- There are three government branches in Ethiopia (legislative, executive and judicial) at Federal and Regional levels.
- Each/Every gov't organizations initiate or draft policies, proclamations, regulations, directives etc. and present to Executive branch for approval or further recommendation to House of the representatives.
- The proclamations are approved by the house of representatives where as the others by executives (the council of ministers) according to constitution of the land .

The First S&T policy of Ethiopia



- National Science and technology policy was issued for the first time in December 1993.
- The initiation, drafting and ratification of the policy took about 10 years from 1984 - 1993.

OBJECTIVES OF THE POLICY



- To build national capability to generate, select, import, develop, disseminate and apply appropriate technologies for the realization of the country's socio-economic objectives and to rationally conserve and utilize its natural and manpower resources.
- To improve and develop the knowledge, culture and the scientific and technological awareness of the peoples of Ethiopia, and promote the development of traditional, new and emerging technologies.
- To make Science and Technology (S&T) activities more productive, efficient and development oriented.

Policy Directives



The following are the policy directives intended to help realize the set objectives and to build S&T capabilities in the priority accorded areas of the economic and service sectors.

- Build the capacity to search, select, negotiate, procure, exchange and introduce technologies suitable to Ethiopia's socio-economic conditions.
- Establish and/or strengthen S&T institutes, Research and Development (R&D) centers and support services as necessary and appropriate in the various administrative regions.

Policy Directives...



- Establish responsible bodies/organs in every economic and service sector for the execution of S&T development activities.
- Facilitate conditions for the wider participation of women in S&T activities.
- Establish a system to encourage young scientists and technologists.
- Establish a system for a wider popularization of science and technology amongst different nations and nationalities utilizing their languages in order to improve and enrich the S&T culture of the Ethiopian peoples.

Policy Directives...



- Create a conducive working environment to encourage scientists and researchers for better productivity.
- Ensure rapid dissemination and application of Research and Development (R&D) results.
- Encourage the private sector and its capital to participate in the promotion and development of scientific and technological activities.
- Build trained manpower in Science and Technology (S&T) both in quality and quantity.
- Promote the mutual support between S&T education, research and production.
- Encourage the improvement, wider diffusion and application of traditional technologies.

Priority areas and sectors of the policy



AGRICULTURE	NATURAL RESOURCES DEVELOPMENT & ENVIRONMENTAL PROTECTION
WATER RESOURCES DEVELOPMENT	ENERGY
INDUSTRY	CONSTRUCTION
MINERAL RESOURCES	TRANSPORT AND COMMUNICATIONS
HEALTH AND POPULATION PLANNING	EDUCATION
NEW & EMERGING TECHNOLOGIES	

STI Governance



The organizational structure of the S&T system was clearly indicated. This have four functional levels.

1. National S&T Council
2. Technical Advisory Committee of the National S&T Council
3. Ethiopian Science and Technology Commission, and
4. S&T operational Institutes and Centers

Limitation of the first STI policy



There were some weaknesses that are observed during the implementation of the the policy. To mention a few:

- The policy didn't treat social sciences as one branch of S&T.
- The demand side of government interventions were not well addressed.

Limitation of the first STI policy ...



- The organizational structure of the national S&T system didn't take in to account decentralized government structure.
- The policy was focused too much on the public sector.
- There were no clear distinctions between policy directives and strategies.

The 2nd revised STI policy



In 2007 STI policy revision took place. The major reasons for revising the policy are the following:

- The **Ethiopian economy has gone** through major transformations from **centralized** to an open **market economy** with concomitant political power **decentralization** where by the regions have legislative, executive and judicial powers on all matters within their borders.

The 2nd revised STI policy ..



- The policy has **served for over a decade** in which there have been rapid national changes in the socio-economy and there has been a global advance in the understanding and application of science, technology and innovation.
- There is a **strong need to create national STI capability** to benefit from the opportunities of the global advancement in scientific knowledge and technology by strengthening the federal and regional government scientific and technological institutions, the universities and the private sector

The 2nd revised STI policy ..



- The existing **STI situation is characterized by fragmented, uncoordinated and uneconomic use of limited resources** and there is a strong need to clearly articulate the legal instruments for effective utilization of the resources.

The 2nd revised policy's Vision



- “ To see Ethiopia become a country where a democratic rule, good –governance and social justice reigns, upon the involvement and free-will of its peoples, and once extricating itself from poverty becomes a middle-income economy.”
- “ To see the living standard of the people improved through the application of science and technology for sustainable social and economic development.” [Full content](#)

Strengths of the 2nd Revised poli



- It clearly demand the National STI council to be chaired by the prime minister.
- It forced the government to upgrade the science and technology agency to ministerial level.
- Ask at least 1.5% of the country's Gross Domestic Product (GDP) shall be allocated annually to different STI activities in all sectors.
- A centralized innovation fund for R&D activities shall be created through a contribution of 1% of the annual profit of all productive and service sectors.

STI Policy instruments



- Proclamations, Regulations, and Directives etc. are policy instruments to force the implementation.
- In our case, 4 proclamations were issued in 1975, 1994, 1995, and 2008.
- These proclamations gave emphasis on STI information and Indicators as follows.



Year	Proc. No	Duties and responsibilities
1975	62	to register and maintain readily accessible for reference documents of research interest.
1994	91	to establish a system for collection of S&T information and results, and for availing of locally published S&T accomplishments and research works in the commission
		to register professionals and institutions that engage in R&D activities



Year	Proc. No	Duties and responsibilities
1995	7	to establish a system for collection of information on S&T accomplishments, research works and results, to keep a list of professionals and institutions that engage in R&D activities
2008	603	collect and organize information on STI; formulate and disseminate applicable indicators on S&T; set and follow up the implementation of standards for assurance of the quality, safety and reliability of information

Powers, Role, and duties of Ethiopian S&T governing institution



Pre – Oct 2008	After Oct 2008
Support, advise and facilitate STI activities	Lead, coordinate, planning, setting priorities and support STI activities.

what is next?



- what is our immediate need? R&D or technology transfer?
- should we concentrated on Basic research or applied ones? If we do both at what proportion?
- what will be the accountability of Higher learning institutions, Research centers which are exist now in different ministries?
- what should be the curriculum of higher education to bring university-industry linkage? should it be theory based or practical? (70 % on S&T...

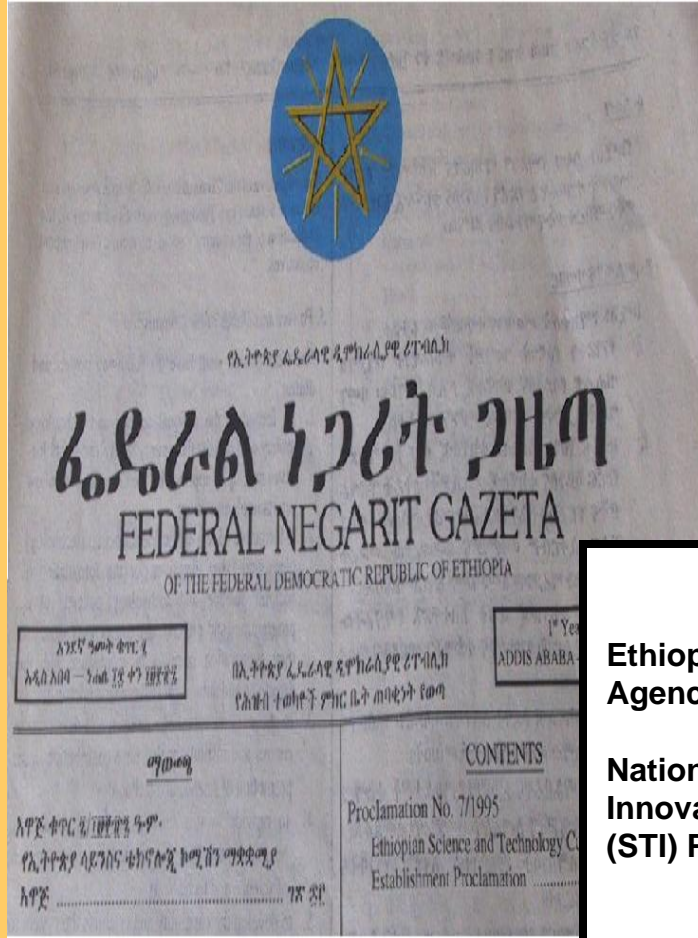
what is next?...



To answer at least some of the above questions and other related issues policy revision for third time is started.

- 20 middle income and high income countries are selected as bench mark.
- Necessary information are gathered.
- Gaps are identified
- Drafting/Revising policy is underway.

References



ETHIOPIAN SCIENCE AND TECHNOLOGY COMMISSION


NATIONAL SCIENCE AND TECHNOLOGY POLICY

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ADDIS ABABA

STI Indicators in R&D 2005, 2007

Africa's S&T CPA





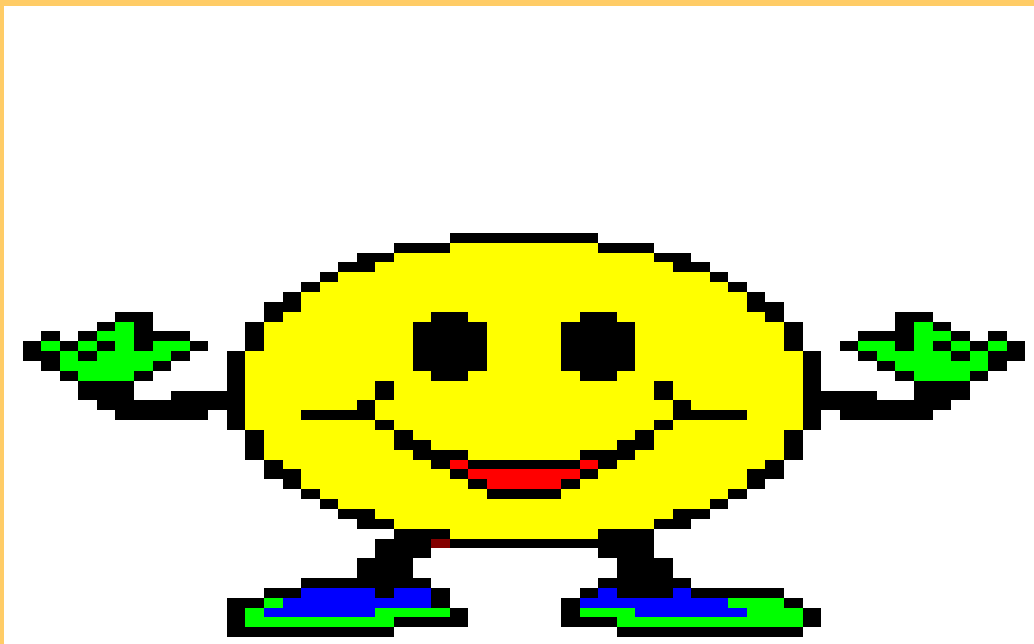
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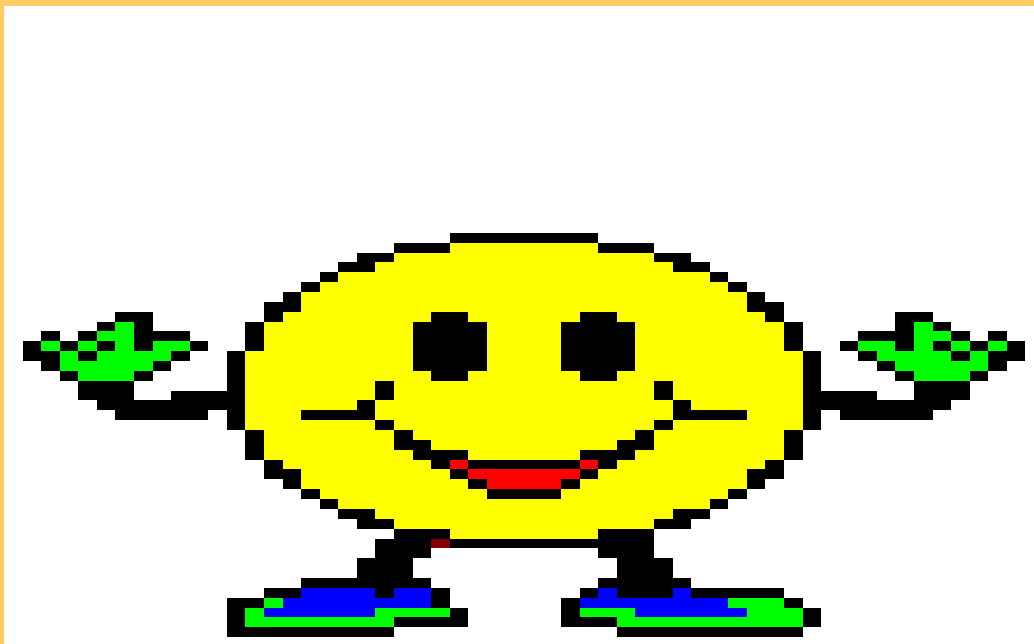


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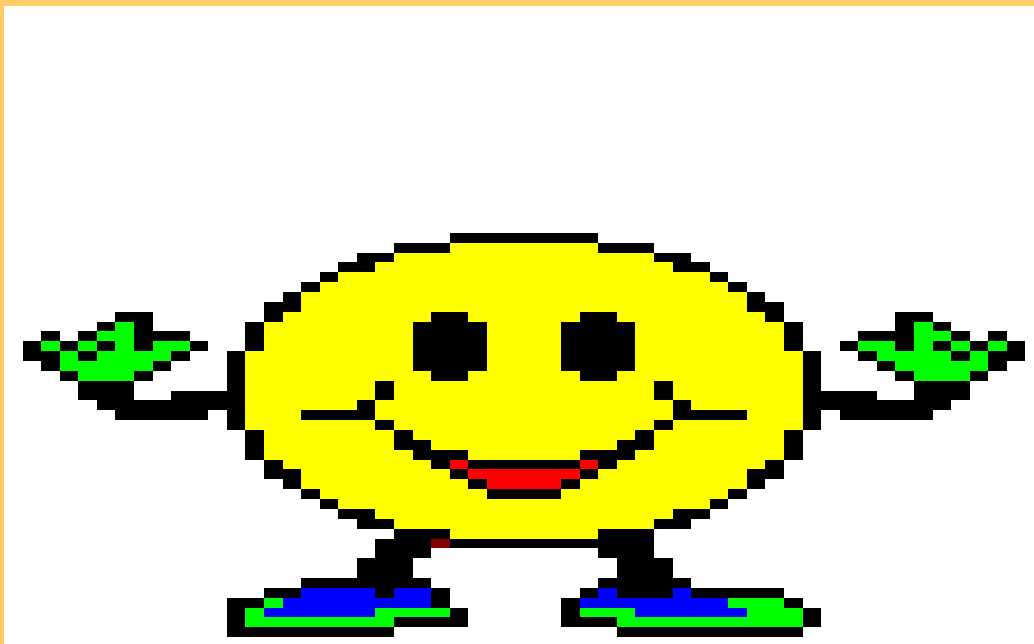


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